

NOT YET SCHEDULED FOR ORAL ARGUMENT

No. 24-1087 and consolidated cases

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U.S. COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

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Commonwealth of Kentucky, et al.,  
Petitioners,

v.

U.S. Environmental Protection Agency and Michael S. Regan, in his official  
capacity as Administrator, U.S. Environmental Protection Agency,  
Respondents.

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Petition for Review of a Rule of  
the U.S. Environmental Protection Agency

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**EPA's Addendum**

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ceed \$6,250,000 for the fiscal year ending June 30, 1976, and the subsequent transition period ending September 30, 1976; not to exceed \$5,000,000 for the fiscal year ending September 30, 1977; and not to exceed \$5,000,000 for the fiscal year ending September 30, 1978. Funds appropriated for any fiscal year shall remain available for obligation until expended.

(Pub. L. 94-136, title VII, §701, Nov. 28, 1975, 89 Stat. 743.)

## CHAPTER 52—ELECTRIC AND HYBRID VEHICLE RESEARCH, DEVELOPMENT, AND DEMONSTRATION

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### § 2501. Congressional findings and policy

(a) The Congress finds and declares that—

(1) the Nation's dependence on foreign sources of petroleum must be reduced, as such dependence jeopardizes national security, inhibits foreign policy, and undermines economic well-being;

(2) the Nation's balance of payments is threatened by the need to import oil for the production of liquid fuel for gasoline-powered vehicles;

(3) the single largest use of petroleum supplies is in the field of transportation, for gasoline- and diesel-powered motor vehicles;

(4) the expeditious introduction of electric and hybrid vehicles into the Nation's transportation fleet would substantially reduce such use and dependence;

(5) such introduction is practicable and would be advantageous because—

(A) most urban driving consists of short trips, which are within the capability of electric and hybrid vehicles;

(B) much rural and agricultural driving of automobiles, tractors, and trucks is within the capability of such vehicles;

(C) electric and hybrid vehicles are more reliable and practical now than in the past because propulsion, control, and battery technologies have improved, and further significant improvements in such technologies are possible in the near term;

(D) electric and hybrid vehicles use little or no energy when stopped in traffic, in contrast to conventional automobiles and trucks;

(E) the power requirements of such vehicles could be satisfied by charging them during off-peak periods when existing electric

generating plants are underutilized, thereby permitting more efficient use of existing generating capacity;

(F) such vehicles do not emit any significant pollutants or noise; and

(G) it is environmentally desirable for transportation systems to be powered from central sources, because pollutants emitted from stationary sources (such as electric generating plants) are potentially easier to control than pollutants emitted from moving vehicles; and

(6) the introduction of electric and hybrid vehicles would be facilitated by the establishment of a Federal program of research, development, and demonstration to explore electric and hybrid vehicle technologies.

(b) It is therefore declared to be the policy of the Congress in this chapter to—

(1) encourage and support accelerated research into, and development of, electric and hybrid vehicle technologies;

(2) demonstrate the economic and technological practicability of electric and hybrid vehicles for personal and commercial use in urban areas and for agricultural and personal use in rural areas;

(3) facilitate, and remove barriers to, the use of electric and hybrid vehicles in lieu of gasoline- and diesel-powered motor vehicles, where practicable; and

(4) promote the substitution of electric and hybrid vehicles for many gasoline- and diesel-powered vehicles currently used in routine short-haul, low-load applications, where such substitution would be beneficial.

(Pub. L. 94-413, §2, Sept. 17, 1976, 90 Stat. 1260.)

### Statutory Notes and Related Subsidiaries

#### SHORT TITLE

Pub. L. 94-413, §1, Sept. 17, 1976, 90 Stat. 1260, provided: "That this Act [enacting this chapter and amending sections 2451 and 2473 of Title 42, The Public Health and Welfare] may be cited as the 'Electric and Hybrid Vehicle Research, Development, and Demonstration Act of 1976'."

### § 2502. Definitions

As used in this chapter, the term—

(1) Omitted.

(2) "advanced electric or hybrid vehicle" means a vehicle which—

(A) minimizes the total amount of energy to be consumed with respect to its fabrication, operation, and disposal, and represents a substantial improvement over existing electric and hybrid vehicles with respect to the total amount of energy so consumed;

(B) is capable of being mass-produced and operated at a cost and in a manner which is sufficiently competitive to enable it to be produced and sold in numbers representing a reasonable portion of the market;

(C) is safe, damage-resistant, easy to repair, durable, and operates with sufficient performance with respect to acceleration, cold-weather starting, cruising speed, and other performance factors; and

(D) at a minimum, can be produced, distributed, operated, and disposed of in com-

(2) the new advanced lean burn technology motor vehicle credit determined under subsection (c),

(3) the new qualified hybrid motor vehicle credit determined under subsection (d),

(4) the new qualified alternative fuel motor vehicle credit determined under subsection (e), and

(5) the plug-in conversion credit determined under subsection (i).

**(b) New qualified fuel cell motor vehicle credit**

**(1) In general**

For purposes of subsection (a), the new qualified fuel cell motor vehicle credit determined under this subsection with respect to a new qualified fuel cell motor vehicle placed in service by the taxpayer during the taxable year is—

(A) \$8,000 (\$4,000 in the case of a vehicle placed in service after December 31, 2009), if such vehicle has a gross vehicle weight rating of not more than 8,500 pounds,

(B) \$10,000, if such vehicle has a gross vehicle weight rating of more than 8,500 pounds but not more than 14,000 pounds,

(C) \$20,000, if such vehicle has a gross vehicle weight rating of more than 14,000 pounds but not more than 26,000 pounds, and

(D) \$40,000, if such vehicle has a gross vehicle weight rating of more than 26,000 pounds.

**(2) Increase for fuel efficiency**

**(A) In general**

The amount determined under paragraph (1)(A) with respect to a new qualified fuel cell motor vehicle which is a passenger automobile or light truck shall be increased by—

(i) \$1,000, if such vehicle achieves at least 150 percent but less than 175 percent of the 2002 model year city fuel economy,

(ii) \$1,500, if such vehicle achieves at least 175 percent but less than 200 percent of the 2002 model year city fuel economy,

(iii) \$2,000, if such vehicle achieves at least 200 percent but less than 225 percent of the 2002 model year city fuel economy,

(iv) \$2,500, if such vehicle achieves at least 225 percent but less than 250 percent of the 2002 model year city fuel economy,

(v) \$3,000, if such vehicle achieves at least 250 percent but less than 275 percent of the 2002 model year city fuel economy,

(vi) \$3,500, if such vehicle achieves at least 275 percent but less than 300 percent of the 2002 model year city fuel economy, and

(vii) \$4,000, if such vehicle achieves at least 300 percent of the 2002 model year city fuel economy.

**(B) 2002 model year city fuel economy**

For purposes of subparagraph (A), the 2002 model year city fuel economy with respect to a vehicle shall be determined in accordance with the following tables:

(i) In the case of a passenger automobile:

The 2002 model year city fuel economy	
If vehicle inertia weight class is:	

is:	
1,500 or 1,750 lbs .....	45.2 mpg
2,000 lbs .....	39.6 mpg
2,250 lbs .....	35.2 mpg
2,500 lbs .....	31.7 mpg
2,750 lbs .....	28.8 mpg
3,000 lbs .....	26.4 mpg
3,500 lbs .....	22.6 mpg
4,000 lbs .....	19.8 mpg
4,500 lbs .....	17.6 mpg
5,000 lbs .....	15.9 mpg
5,500 lbs .....	14.4 mpg
6,000 lbs .....	13.2 mpg
6,500 lbs .....	12.2 mpg
7,000 to 8,500 lbs .....	11.3 mpg.

(ii) In the case of a light truck:

The 2002 model year city fuel economy is:	
If vehicle inertia weight class is:	
1,500 or 1,750 lbs .....	39.4 mpg
2,000 lbs .....	35.2 mpg
2,250 lbs .....	31.8 mpg
2,500 lbs .....	29.0 mpg
2,750 lbs .....	26.8 mpg
3,000 lbs .....	24.9 mpg
3,500 lbs .....	21.8 mpg
4,000 lbs .....	19.4 mpg
4,500 lbs .....	17.6 mpg
5,000 lbs .....	16.1 mpg
5,500 lbs .....	14.8 mpg
6,000 lbs .....	13.7 mpg
6,500 lbs .....	12.8 mpg
7,000 to 8,500 lbs .....	12.1 mpg.

**(C) Vehicle inertia weight class**

For purposes of subparagraph (B), the term “vehicle inertia weight class” has the same meaning as when defined in regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of the administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.).

**(3) New qualified fuel cell motor vehicle**

For purposes of this subsection, the term “new qualified fuel cell motor vehicle” means a motor vehicle—

(A) which is propelled by power derived from 1 or more cells which convert chemical energy directly into electricity by combining oxygen with hydrogen fuel which is stored on board the vehicle in any form and may or may not require reformation prior to use,

(B) which, in the case of a passenger automobile or light truck, has received on or after the date of the enactment of this section a certificate that such vehicle meets or exceeds the Bin 5 Tier II emission level established in regulations prescribed by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act for that make and model year vehicle,

(C) the original use of which commences with the taxpayer,

(D) which is acquired for use or lease by the taxpayer and not for resale, and

(E) which is made by a manufacturer.

(iv) in the case of a vehicle placed in service during calendar year 2026, 70 percent, and

(v) in the case of a vehicle placed in service after December 31, 2026, 80 percent.

## **(2) Battery components**

### **(A) In general**

The requirement described in this subparagraph with respect to a vehicle is that, with respect to the battery from which the electric motor of such vehicle draws electricity, the percentage of the value of the components contained in such battery that were manufactured or assembled in North America is equal to or greater than the applicable percentage (as certified by the qualified manufacturer, in such form or manner as prescribed by the Secretary).

### **(B) Applicable percentage**

For purposes of subparagraph (A), the applicable percentage shall be—

(i) in the case of a vehicle placed in service after the date on which the proposed guidance described in paragraph (3)(B) is issued by the Secretary and before January 1, 2024, 50 percent,

(ii) in the case of a vehicle placed in service during calendar year 2024 or 2025, 60 percent,

(iii) in the case of a vehicle placed in service during calendar year 2026, 70 percent,

(iv) in the case of a vehicle placed in service during calendar year 2027, 80 percent,

(v) in the case of a vehicle placed in service during calendar year 2028, 90 percent,

(vi) in the case of a vehicle placed in service after December 31, 2028, 100 percent.

## **(3) Regulations and guidance**

### **(A) In general**

The Secretary shall issue such regulations or other guidance as the Secretary determines necessary to carry out the purposes of this subsection, including regulations or other guidance which provides for requirements for recordkeeping or information reporting for purposes of administering the requirements of this subsection.

### **(B) Deadline for proposed guidance**

Not later than December 31, 2022, the Secretary shall issue proposed guidance with respect to the requirements under this subsection.

## **(f) Special rules**

### **(1) Basis reduction**

For purposes of this subtitle, the basis of any property for which a credit is allowable under subsection (a) shall be reduced by the amount of such credit so allowed (determined without regard to subsection (c)).

### **(2) No double benefit**

The amount of any deduction or other credit allowable under this chapter for a vehicle for which a credit is allowable under subsection

(a) shall be reduced by the amount of credit allowed under such subsection for such vehicle (determined without regard to subsection (c)).

**[ (3) Repealed. Pub. L. 117–169, title I, § 13401(g)(2)(B)(i), Aug. 16, 2022, 136 Stat. 1960 ]**

### **(4) Property used outside United States not qualified**

No credit shall be allowable under subsection (a) with respect to any property referred to in section 50(b)(1).

### **(5) Recapture**

The Secretary shall, by regulations, provide for recapturing the benefit of any credit allowable under subsection (a) with respect to any property which ceases to be property eligible for such credit.

### **(6) Election not to take credit**

No credit shall be allowed under subsection (a) for any vehicle if the taxpayer elects to not have this section apply to such vehicle.

### **(7) Interaction with air quality and motor vehicle safety standards**

A vehicle shall not be considered eligible for a credit under this section unless such vehicle is in compliance with—

(A) the applicable provisions of the Clean Air Act for the applicable make and model year of the vehicle (or applicable air quality provisions of State law in the case of a State which has adopted such provision under a waiver under section 209(b) of the Clean Air Act), and

(B) the motor vehicle safety provisions of sections 30101 through 30169 of title 49, United States Code.

### **(8) One credit per vehicle**

In the case of any vehicle, the credit described in subsection (a) shall only be allowed once with respect to such vehicle, as determined based upon the vehicle identification number of such vehicle, including any vehicle with respect to which the taxpayer elects the application of subsection (g).

### **(9) VIN requirement**

No credit shall be allowed under this section with respect to any vehicle unless the taxpayer includes the vehicle identification number of such vehicle on the return of tax for the taxable year.

### **(10) Limitation based on modified adjusted gross income**

#### **(A) In general**

No credit shall be allowed under subsection (a) for any taxable year if—

(i) the lesser of—

(I) the modified adjusted gross income of the taxpayer for such taxable year, or

(II) the modified adjusted gross income of the taxpayer for the preceding taxable year, exceeds

(ii) the threshold amount.

#### **(B) Threshold amount**

For purposes of subparagraph (A)(ii), the threshold amount shall be—



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#### Editorial Notes

##### CODIFICATION

Act July 14, 1955, ch. 360, 69 Stat. 322, as amended, known as the Clean Air Act, which was formerly classified to chapter 15B (§1857 et seq.) of this title, was completely revised by Pub. L. 95–95, Aug. 7, 1977, 91 Stat. 685, and was reclassified to this chapter.

#### SUBCHAPTER I—PROGRAMS AND ACTIVITIES

##### PART A—AIR QUALITY AND EMISSION LIMITATIONS

#### Editorial Notes

##### CODIFICATION

Pub. L. 95–95, title I, §117(a), Aug. 7, 1977, 91 Stat. 712, designated sections 7401 to 7428 of this title as part A.

#### § 7401. Congressional findings and declaration of purpose

##### (a) Findings

The Congress finds—

(1) that the predominant part of the Nation's population is located in its rapidly expanding metropolitan and other urban areas, which generally cross the boundary lines of local jurisdictions and often extend into two or more States;

(2) that the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles, has resulted

in mounting dangers to the public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation;

(3) that air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local governments; and

(4) that Federal financial assistance and leadership is essential for the development of cooperative Federal, State, regional, and local programs to prevent and control air pollution.

#### (b) Declaration

The purposes of this subchapter are—

(1) to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;

(2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;

(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and

(4) to encourage and assist the development and operation of regional air pollution prevention and control programs.

#### (c) Pollution prevention

A primary goal of this chapter is to encourage or otherwise promote reasonable Federal, State, and local governmental actions, consistent with the provisions of this chapter, for pollution prevention.

(July 14, 1955, ch. 360, title I, §101, formerly §1, as added Pub. L. 88-206, §1, Dec. 17, 1963, 77 Stat. 392; renumbered §101 and amended Pub. L. 89-272, title I, §101(2), (3), Oct. 20, 1965, 79 Stat. 992; Pub. L. 90-148, §2, Nov. 21, 1967, 81 Stat. 485; Pub. L. 101-549, title I, §108(k), Nov. 15, 1990, 104 Stat. 2468.)

#### Editorial Notes

##### CODIFICATION

Section was formerly classified to section 1857 of this title.

##### PRIOR PROVISIONS

Provisions similar to those in this section were contained in a prior section 1857 of this title, act of July 14, 1955, ch. 360, §1, 69 Stat. 322, prior to the general amendment of this chapter by Pub. L. 88-206.

##### AMENDMENTS

1990—Subsec. (a)(3). Pub. L. 101-549, §108(k)(1), amended par. (3) generally. Prior to amendment, par. (3) read as follows: “that the prevention and control of air pollution at its source is the primary responsibility of States and local governments; and”.

Subsec. (b)(4). Pub. L. 101-549, §108(k)(2), inserted “prevention and” after “pollution”.

Subsec. (c). Pub. L. 101-549, §108(k)(3), added subsec. (c).

1967—Subsec. (b)(1). Pub. L. 90-148 inserted “and enhance the quality of” after “to protect”.

1965—Subsec. (b). Pub. L. 89-272 substituted “this title” for “this Act”, which for purposes of codification has been changed to “this subchapter”.

#### Statutory Notes and Related Subsidiaries

##### EFFECTIVE DATE OF 1990 AMENDMENT

Pub. L. 101-549, title VII, §711(b), Nov. 15, 1990, 104 Stat. 2684, provided that:

“(1) Except as otherwise expressly provided, the amendments made by this Act [see Tables for classification] shall be effective on the date of enactment of this Act [Nov. 15, 1990].

“(2) The Administrator's authority to assess civil penalties under section 205(c) of the Clean Air Act [42 U.S.C. 7524(c)], as amended by this Act, shall apply to violations that occur or continue on or after the date of enactment of this Act. Civil penalties for violations that occur prior to such date and do not continue after such date shall be assessed in accordance with the provisions of the Clean Air Act [42 U.S.C. 7401 et seq.] in effect immediately prior to the date of enactment of this Act.

“(3) The civil penalties prescribed under sections 205(a) and 211(d)(1) of the Clean Air Act [42 U.S.C. 7524(a), 7545(d)(1)], as amended by this Act, shall apply to violations that occur on or after the date of enactment of this Act. Violations that occur prior to such date shall be subject to the civil penalty provisions prescribed in sections 205(a) and 211(d) of the Clean Air Act in effect immediately prior to the enactment of this Act. The injunctive authority prescribed under section 211(d)(2) of the Clean Air Act, as amended by this Act, shall apply to violations that occur or continue on or after the date of enactment of this Act.

“(4) For purposes of paragraphs (2) and (3), where the date of a violation cannot be determined it will be assumed to be the date on which the violation is discovered.”

##### EFFECTIVE DATE OF 1977 AMENDMENT; PENDING ACTIONS; CONTINUATION OF RULES, CONTRACTS, AUTHORIZATIONS, ETC.; IMPLEMENTATION PLANS

Pub. L. 95-95, title IV, §406, Aug. 7, 1977, 91 Stat. 795, as amended by Pub. L. 95-190, §14(b)(6), Nov. 16, 1977, 91 Stat. 1405, provided that:

“(a) No suit, action, or other proceeding lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under the Clean Air Act [this chapter], as in effect immediately prior to the date of enactment of this Act [Aug. 7, 1977] shall abate by reason of the taking effect of the amendments made by this Act [see Short Title of 1977 Amendment note below]. The court may, on its own motion or that of any party made at any time within twelve months after such taking effect, allow the same to be maintained by or against the Administrator or such officer or employee.

“(b) All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to the Clean Air Act [this chapter], as in effect immediately prior to the date of enactment of this Act [Aug. 7, 1977], and pertaining to any functions, powers, requirements, and duties under the Clean Air Act, as in effect immediately prior to the date of enactment of this Act, and not suspended by the Administrator or the courts, shall continue in full force and effect after the date of enactment of this Act until modified or rescinded in accordance with the Clean Air Act as amended by this Act [see Short Title of 1977 Amendment note below].

“(c) Nothing in this Act [see Short Title of 1977 Amendment note below] nor any action taken pursuant to this Act shall in any way affect any requirement of an approved implementation plan in effect under section 110 of the Clean Air Act [section 7410 of this title] or any other provision of the Act in effect under the Clean Air Act before the date of enactment of this section [Aug. 7, 1977] until modified or rescinded in accordance with the Clean Air Act [this chapter] as amended by this Act [see Short Title of 1977 Amendment note below].



“(d)(1) Except as otherwise expressly provided, the amendments made by this Act [see Short Title of 1977 Amendment note below] shall be effective on date of enactment [Aug. 7, 1977].

“(2) Except as otherwise expressly provided, each State required to revise its applicable implementation plan by reason of any amendment made by this Act [see Short Title of 1977 Amendment note below] shall adopt and submit to the Administrator of the Environmental Protection Administration such plan revision before the later of the date—

“(A) one year after the date of enactment of this Act [Aug. 7, 1977], or

“(B) nine months after the date of promulgation by the Administrator of the Environmental Protection Administration of any regulations under an amendment made by this Act which are necessary for the approval of such plan revision.”

#### SHORT TITLE OF 1999 AMENDMENT

Pub. L. 106-40, § 1, Aug. 5, 1999, 113 Stat. 207, provided that: “This Act [amending section 7412 of this title and enacting provisions set out as notes under section 7412 of this title] may be cited as the ‘Chemical Safety Information, Site Security and Fuels Regulatory Relief Act.’”

#### SHORT TITLE OF 1998 AMENDMENT

Pub. L. 105-286, § 1, Oct. 27, 1998, 112 Stat. 2773, provided that: “This Act [amending section 7511b of this title and enacting provisions set out as a note under section 7511b of this title] may be cited as the ‘Border Smog Reduction Act of 1998.’”

#### SHORT TITLE OF 1990 AMENDMENT

Pub. L. 101-549, Nov. 15, 1990, 104 Stat. 2399, is popularly known as the “Clean Air Act Amendments of 1990”. See Tables for classification.

#### SHORT TITLE OF 1981 AMENDMENT

Pub. L. 97-23, § 1, July 17, 1981, 95 Stat. 139, provided: “That this Act [amending sections 7410 and 7413 of this title] may be cited as the ‘Steel Industry Compliance Extension Act of 1981’.”

#### SHORT TITLE OF 1977 AMENDMENT

Pub. L. 95-95, § 1, Aug. 7, 1977, 91 Stat. 685, provided that: “This Act [enacting sections 4362, 7419 to 7428, 7450 to 7459, 7470 to 7479, 7491, 7501 to 7508, 7548, 7549, 7551, 7617 to 7625, and 7626 of this title, amending sections 7403, 7405, 7407 to 7415, 7417, 7418, 7521 to 7525, 7541, 7543, 7544, 7545, 7550, 7571, 7601 to 7605, 7607, 7612, 7613, and 7616 of this title, repealing section 1857c-10 of this title, and enacting provisions set out as notes under this section, sections 7403, 7422, 7470, 7479, 7502, 7521, 7548, and 7621 of this title, and section 792 of Title 15, Commerce and Trade] may be cited as the ‘Clean Air Act Amendments of 1977’.”

#### SHORT TITLE OF 1970 AMENDMENT

Pub. L. 91-604, § 1, Dec. 31, 1970, 84 Stat. 1676, provided: “That this Act [amending this chapter generally] may be cited as the ‘Clean Air Amendments of 1970’.”

#### SHORT TITLE OF 1967 AMENDMENT

Pub. L. 90-148, § 1, Nov. 21, 1967, 81 Stat. 485, provided: “That this Act [amending this chapter generally] may be cited as the ‘Air Quality Act of 1967’.”

#### SHORT TITLE OF 1966 AMENDMENT

Pub. L. 89-675, § 1, Oct. 15, 1966, 80 Stat. 954, provided: “That this Act [amending sections 7405 and 7616 of this title and repealing section 1857f-8 of this title] may be cited as the ‘Clean Air Act Amendments of 1966’.”

#### SHORT TITLE

Act July 14, 1955, ch. 360, title III, § 317, formerly § 14, as added by Pub. L. 88-206, § 1, Dec. 17, 1963, 77 Stat. 401;

renumbered § 307 by Pub. L. 89-272, title I, § 101(4), Oct. 20, 1965, 79 Stat. 992; renumbered § 310 by Pub. L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 499; renumbered § 317 by Pub. L. 91-604, § 12(a), Dec. 31, 1970, 84 Stat. 1705, provided that: “This Act [enacting this chapter] may be cited as the ‘Clean Air Act’.”

Act July 14, 1955, ch. 360, title II, § 201, as added by Pub. L. 89-272, title I, § 101(8), Oct. 20, 1965, 79 Stat. 992, and amended by Pub. L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 499, provided that: “This title [enacting subchapter II of this chapter] may be cited as the ‘National Emission Standards Act’.” Prior to its amendment by Pub. L. 90-148, title II of act June 14, 1955, was known as the “Motor Vehicle Air Pollution Control Act”.

Act July 14, 1955, ch. 360, title IV, § 401, as added by Dec. 31, 1970, Pub. L. 91-604, § 14, 84 Stat. 1709, provided that: “This title [enacting subchapter IV of this chapter] may be cited as the ‘Noise Pollution and Abatement Act of 1970’.”

#### SAVINGS PROVISION

Pub. L. 101-549, title VII, § 711(a), Nov. 15, 1990, 104 Stat. 2684, provided that: “Except as otherwise expressly provided in this Act [see Tables for classification], no suit, action, or other proceeding lawfully commenced by the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under the Clean Air Act [42 U.S.C. 7401 et seq.], as in effect immediately prior to the date of enactment of this Act [Nov. 15, 1990], shall abate by reason of the taking effect of the amendments made by this Act.”

#### IMPACT ON SMALL COMMUNITIES

Pub. L. 101-549, title VIII, § 810, Nov. 15, 1990, 104 Stat. 2690, provided that: “Before implementing a provision of this Act [see Tables for classification], the Administrator of the Environmental Protection Agency shall consult with the Small Communities Coordinator of the Environmental Protection Agency to determine the impact of such provision on small communities, including the estimated cost of compliance with such provision.”

#### RADON ASSESSMENT AND MITIGATION

Pub. L. 99-499, title I, § 118(k), Oct. 17, 1986, 100 Stat. 1659, as amended by Pub. L. 105-362, title V, § 501(i), Nov. 10, 1998, 112 Stat. 3284, provided that:

“(1) NATIONAL ASSESSMENT OF RADON GAS.—No later than one year after the enactment of this Act [Oct. 17, 1986], the Administrator shall submit to the Congress a report which shall, to the extent possible—

“(A) identify the locations in the United States where radon is found in structures where people normally live or work, including educational institutions;

“(B) assess the levels of radon gas that are present in such structures;

“(C) determine the level of radon gas and radon daughters which poses a threat to human health and assess for each location identified under subparagraph (A) the extent of the threat to human health;

“(D) determine methods of reducing or eliminating the threat to human health of radon gas and radon daughters; and

“(E) include guidance and public information materials based on the findings or research of mitigating radon.

“(2) RADON MITIGATION DEMONSTRATION PROGRAM.—

“(A) DEMONSTRATION PROGRAM.—The Administrator shall conduct a demonstration program to test methods and technologies of reducing or eliminating radon gas and radon daughters where it poses a threat to human health. The Administrator shall take into consideration any demonstration program underway in the Reading Prong of Pennsylvania, New Jersey, and New York and at other sites prior to enactment. The demonstration program under this section shall be conducted in the Reading Prong, and at such other sites as the Administrator considers appropriate.

“(B) LIABILITY.—Liability, if any, for persons undertaking activities pursuant to the radon mitigation demonstration program authorized under this subsection shall be determined under principles of existing law.

“(3) CONSTRUCTION OF SECTION.—Nothing in this subsection shall be construed to authorize the Administrator to carry out any regulatory program or any activity other than research, development, and related reporting, information dissemination, and coordination activities specified in this subsection. Nothing in paragraph (1) or (2) shall be construed to limit the authority of the Administrator or of any other agency or instrumentality of the United States under any other authority of law.”

#### SPILL CONTROL TECHNOLOGY

Pub. L. 99-499, title I, §118(n), Oct. 17, 1986, 100 Stat. 1660, provided that:

“(1) ESTABLISHMENT OF PROGRAM.—Within 180 days of enactment of this subsection [Oct. 17, 1986], the Secretary of the United States Department of Energy is directed to carry out a program of testing and evaluation of technologies which may be utilized in responding to liquefied gaseous and other hazardous substance spills at the Liquefied Gaseous Fuels Spill Test Facility that threaten public health or the environment.

“(2) TECHNOLOGY TRANSFER.—In carrying out the program established under this subsection, the Secretary shall conduct a technology transfer program that, at a minimum—

“(A) documents and archives spill control technology;

“(B) investigates and analyzes significant hazardous spill incidents;

“(C) develops and provides generic emergency action plans;

“(D) documents and archives spill test results;

“(E) develops emergency action plans to respond to spills;

“(F) conducts training of spill response personnel; and

“(G) establishes safety standards for personnel engaged in spill response activities.

“(3) CONTRACTS AND GRANTS.—The Secretary is directed to enter into contracts and grants with a non-profit organization in Albany County, Wyoming, that is capable of providing the necessary technical support and which is involved in environmental activities related to such hazardous substance related emergencies.

“(4) USE OF SITE.—The Secretary shall arrange for the use of the Liquefied Gaseous Fuels Spill Test Facility to carry out the provisions of this subsection.”

#### RADON GAS AND INDOOR AIR QUALITY RESEARCH

Pub. L. 99-499, title IV, Oct. 17, 1986, 100 Stat. 1758, provided that:

##### “SEC. 401. SHORT TITLE.

“This title may be cited as the ‘Radon Gas and Indoor Air Quality Research Act of 1986’.

##### “SEC. 402. FINDINGS.

“The Congress finds that:

“(1) High levels of radon gas pose a serious health threat in structures in certain areas of the country.

“(2) Various scientific studies have suggested that exposure to radon, including exposure to naturally occurring radon and indoor air pollutants, poses a public health risk.

“(3) Existing Federal radon and indoor air pollutant research programs are fragmented and underfunded.

“(4) An adequate information base concerning exposure to radon and indoor air pollutants should be developed by the appropriate Federal agencies.

##### “SEC. 403. RADON GAS AND INDOOR AIR QUALITY RESEARCH PROGRAM.

“(a) DESIGN OF PROGRAM.—The Administrator of the Environmental Protection Agency shall establish a re-

search program with respect to radon gas and indoor air quality. Such program shall be designed to—

“(1) gather data and information on all aspects of indoor air quality in order to contribute to the understanding of health problems associated with the existence of air pollutants in the indoor environment;

“(2) coordinate Federal, State, local, and private research and development efforts relating to the improvement of indoor air quality; and

“(3) assess appropriate Federal Government actions to mitigate the environmental and health risks associated with indoor air quality problems.

“(b) PROGRAM REQUIREMENTS.—The research program required under this section shall include—

“(1) research and development concerning the identification, characterization, and monitoring of the sources and levels of indoor air pollution, including radon, which includes research and development relating to—

“(A) the measurement of various pollutant concentrations and their strengths and sources,

“(B) high-risk building types, and

“(C) instruments for indoor air quality data collection;

“(2) research relating to the effects of indoor air pollution and radon on human health;

“(3) research and development relating to control technologies or other mitigation measures to prevent or abate indoor air pollution (including the development, evaluation, and testing of individual and generic control devices and systems);

“(4) demonstration of methods for reducing or eliminating indoor air pollution and radon, including sealing, venting, and other methods that the Administrator determines may be effective;

“(5) research, to be carried out in conjunction with the Secretary of Housing and Urban Development, for the purpose of developing—

“(A) methods for assessing the potential for radon contamination of new construction, including (but not limited to) consideration of the moisture content of soil, porosity of soil, and radon content of soil; and

“(B) design measures to avoid indoor air pollution; and

“(6) the dissemination of information to assure the public availability of the findings of the activities under this section.

“(c) ADVISORY COMMITTEES.—The Administrator shall establish a committee comprised of individuals representing Federal agencies concerned with various aspects of indoor air quality and an advisory group comprised of individuals representing the States, the scientific community, industry, and public interest organizations to assist him in carrying out the research program for radon gas and indoor air quality.

“(d) IMPLEMENTATION PLAN.—Not later than 90 days after the enactment of this Act [Oct. 17, 1986], the Administrator shall submit to the Congress a plan for implementation of the research program under this section. Such plan shall also be submitted to the EPA Science Advisory Board, which shall, within a reasonable period of time, submit its comments on such plan to Congress.

“(e) REPORT.—Not later than 2 years after the enactment of this Act [Oct. 17, 1986], the Administrator shall submit to Congress a report respecting his activities under this section and making such recommendations as appropriate.

##### “SEC. 404. CONSTRUCTION OF TITLE.

“Nothing in this title shall be construed to authorize the Administrator to carry out any regulatory program or any activity other than research, development, and related reporting, information dissemination, and coordination activities specified in this title. Nothing in this title shall be construed to limit the authority of the Administrator or of any other agency or instrumentality of the United States under any other authority of law.

## “SEC. 405. AUTHORIZATIONS.

“There are authorized to be appropriated to carry out the activities under this title and under section 118(k) of the Superfund Amendments and Reauthorization Act of 1986 (relating to radon gas assessment and demonstration program) [section 118(k) of Pub. L. 99-499, set out as a note above] not to exceed \$5,000,000 for each of the fiscal years 1987, 1988, and 1989. Of such sums appropriated in fiscal years 1987 and 1988, two-fifths shall be reserved for the implementation of section 118(k)(2).”

## STUDY OF ODORS AND ODOROUS EMISSIONS

Pub. L. 95-95, title IV, § 403(b), Aug. 7, 1977, 91 Stat. 792, directed Administrator of Environmental Protection Agency to conduct a study and report to Congress not later than Jan. 1, 1979, on effects on public health and welfare of odors and odorous emissions, source of such emissions, technology or other measures available for control of such emissions and costs of such technology or measures, and costs and benefits of alternative measures or strategies to abate such emissions.

## LIST OF CHEMICAL CONTAMINANTS FROM ENVIRONMENTAL POLLUTION FOUND IN HUMAN TISSUE

Pub. L. 95-95, title IV, § 403(c), Aug. 7, 1977, 91 Stat. 792, directed Administrator of EPA, not later than twelve months after Aug. 7, 1977, to publish throughout the United States a list of all known chemical contaminants resulting from environmental pollution which have been found in human tissue including blood, urine, breast milk, and all other human tissue, such list to be prepared for the United States and to indicate approximate number of cases, range of levels found, and mean levels found, directed Administrator, not later than eighteen months after Aug. 7, 1977, to publish in same manner an explanation of what is known about the manner in which chemicals entered the environment and thereafter human tissue, and directed Administrator, in consultation with National Institutes of Health, the National Center for Health Statistics, and the National Center for Health Services Research and Development, to, if feasible, conduct an epidemiological study to demonstrate the relationship between levels of chemicals in the environment and in human tissue, such study to be made in appropriate regions or areas of the United States in order to determine any different results in such regions or areas, and the results of such study to be reported, as soon as practicable, to appropriate committee of Congress.

## STUDY ON REGIONAL AIR QUALITY

Pub. L. 95-95, title IV, § 403(d), Aug. 7, 1977, 91 Stat. 793, directed Administrator of EPA to conduct a study of air quality in various areas throughout the country including the gulf coast region, such study to include analysis of liquid and solid aerosols and other fine particulate matter and contribution of such substances to visibility and public health problems in such areas, with Administrator to use environmental health experts from the National Institutes of Health and other outside agencies and organizations.

## RAILROAD EMISSION STUDY

Pub. L. 95-95, title IV, § 404, Aug. 7, 1977, 91 Stat. 793, as amended by H. Res. 549, Mar. 25, 1980, directed Administrator of EPA to conduct a study and investigation of emissions of air pollutants from railroad locomotives, locomotive engines, and secondary power sources on railroad rolling stock, in order to determine extent to which such emissions affect air quality in air quality control regions throughout the United States, technological feasibility and current state of technology for controlling such emissions, and status and effect of current and proposed State and local regulations affecting such emissions, and within one hundred and eighty days after commencing such study and investigation, Administrator to submit a report of such study and investigation, together with recommenda-

tions for appropriate legislation, to Senate Committee on Environment and Public Works and House Committee on Energy and Commerce.

## STUDY AND REPORT CONCERNING ECONOMIC APPROACHES TO CONTROLLING AIR POLLUTION

Pub. L. 95-95, title IV, § 405, Aug. 7, 1977, 91 Stat. 794, directed Administrator, in conjunction with Council of Economic Advisors, to undertake a study and assessment of economic measures for control of air pollution which could strengthen effectiveness of existing methods of controlling air pollution, provide incentives to abate air pollution greater than that required by Clean Air Act, and serve as primary incentive for controlling air pollution problems not addressed by Clean Air Act, and directed that not later than 2 years after Aug. 7, 1977, Administrator and Council conclude study and submit a report to President and Congress.

## Executive Documents

## TRANSFER OF FUNCTIONS

Reorg. Plan No. 3 of 1970, § 2(a)(3), eff. Dec. 2, 1970, 35 F.R. 15623, 84 Stat. 2086, transferred to Administrator of Environmental Protection Agency functions vested by law in Secretary of Health, Education, and Welfare or in Department of Health, Education, and Welfare which are administered through Environmental Health Service, including functions exercised by National Air Pollution Control Administration, and Environmental Control Administration's Bureau of Solid Waste Management, Bureau of Water Hygiene, and Bureau of Radiological Health, except insofar as functions carried out by Bureau of Radiological Health pertain to regulation of radiation from consumer products, including electronic product radiation, radiation as used in healing arts, occupational exposure to radiation, and research, technical assistance, and training related to radiation from consumer products, radiation as used in healing arts, and occupational exposure to radiation.

## NATIONAL INDUSTRIAL POLLUTION CONTROL COUNCIL

For provisions relating to establishment of National Industrial Pollution Control Council, see Ex. Ord. No. 11523, Apr. 9, 1970, 35 F.R. 5993, set out as a note under section 4321 of this title.

## FEDERAL COMPLIANCE WITH POLLUTION CONTROL STANDARDS

For provisions relating to responsibility of head of each Executive agency for compliance with applicable pollution control standards, see Ex. Ord. No. 12088, Oct. 13, 1978, 43 F.R. 47707, set out as a note under section 4321 of this title.

## EXECUTIVE ORDER NO. 10779

Ex. Ord. No. 10779, Aug. 21, 1958, 23 F.R. 6487, which related to cooperation of Federal agencies with State and local authorities, was superseded by Ex. Ord. No. 11282, May 26, 1966, 31 F.R. 7663, formerly set out under section 7418 of this title.

## EXECUTIVE ORDER NO. 11507

Ex. Ord. No. 11507, Feb. 4, 1970, 35 F.R. 2573, which provided for prevention, control, and abatement of air pollution at Federal facilities, was superseded by Ex. Ord. No. 11752, Dec. 17, 1973, 38 F.R. 34793, formerly set out as a note under section 4331 of this title.

## PROMOTING DOMESTIC MANUFACTURING AND JOB CREATION—POLICIES AND PROCEDURES RELATING TO IMPLEMENTATION OF AIR QUALITY STANDARDS

Memorandum of President of the United States, Apr. 12, 2018, 83 F.R. 16761, which related to State Implementation Plans for the Regional Haze Program, was revoked by Ex. Ord. No. 13990, § 7(d), Jan. 20, 2021, 86 F.R. 7042, set out in a note under section 4321 of this title.



**§ 7402. Cooperative activities****(a) Interstate cooperation; uniform State laws; State compacts**

The Administrator shall encourage cooperative activities by the States and local governments for the prevention and control of air pollution; encourage the enactment of improved and, so far as practicable in the light of varying conditions and needs, uniform State and local laws relating to the prevention and control of air pollution; and encourage the making of agreements and compacts between States for the prevention and control of air pollution.

**(b) Federal cooperation**

The Administrator shall cooperate with and encourage cooperative activities by all Federal departments and agencies having functions relating to the prevention and control of air pollution, so as to assure the utilization in the Federal air pollution control program of all appropriate and available facilities and resources within the Federal Government.

**(c) Consent of Congress to compacts**

The consent of the Congress is hereby given to two or more States to negotiate and enter into agreements or compacts, not in conflict with any law or treaty of the United States, for (1) cooperative effort and mutual assistance for the prevention and control of air pollution and the enforcement of their respective laws relating thereto, and (2) the establishment of such agencies, joint or otherwise, as they may deem desirable for making effective such agreements or compacts. No such agreement or compact shall be binding or obligatory upon any State a party thereto unless and until it has been approved by Congress. It is the intent of Congress that no agreement or compact entered into between States after November 21, 1967, which relates to the control and abatement of air pollution in an air quality control region, shall provide for participation by a State which is not included (in whole or in part) in such air quality control region.

(July 14, 1955, ch. 360, title I, §102, formerly §2, as added Pub. L. 88-206, §1, Dec. 17, 1963, 77 Stat. 393; renumbered §102, Pub. L. 89-272, title I, §101(3), Oct. 20, 1965, 79 Stat. 992; amended Pub. L. 90-148, §2, Nov. 21, 1967, 81 Stat. 485; Pub. L. 91-604, §15(c)(2), Dec. 31, 1970, 84 Stat. 1713.)

**Editorial Notes****CODIFICATION**

Section was formerly classified to section 1857a of this title.

**PRIOR PROVISIONS**

Provisions similar to those in the first clause of subsec. (a) of this section were contained in subsec. (b)(1) of a prior section 1857a, of this title, act July 14, 1955, ch. 360, §2, 69 Stat. 322, prior to the general amendment of this chapter by Pub. L. 88-206.

**AMENDMENTS**

1970—Subsecs. (a), (b). Pub. L. 91-604 substituted “Administrator” for “Secretary” wherever appearing.

1967—Subsec. (c). Pub. L. 90-148 inserted declaration that it is the intent of Congress that no agreement or compact entered into between States after the date of

enactment of the Air Quality Act of 1967, which for purposes of codification was changed to November 21, 1967, the date of approval of such Act, relating to the control and abatement of air pollution in an air quality control region, shall provide for participation by a State which is not included (in whole or in part) in such air quality control region.

**§ 7403. Research, investigation, training, and other activities****(a) Research and development program for prevention and control of air pollution**

The Administrator shall establish a national research and development program for the prevention and control of air pollution and as part of such program shall—

(1) conduct, and promote the coordination and acceleration of, research, investigations, experiments, demonstrations, surveys, and studies relating to the causes, effects (including health and welfare effects), extent, prevention, and control of air pollution;

(2) encourage, cooperate with, and render technical services and provide financial assistance to air pollution control agencies and other appropriate public or private agencies, institutions, and organizations, and individuals in the conduct of such activities;

(3) conduct investigations and research and make surveys concerning any specific problem of air pollution in cooperation with any air pollution control agency with a view to recommending a solution of such problem, if he is requested to do so by such agency or if, in his judgment, such problem may affect any community or communities in a State other than that in which the source of the matter causing or contributing to the pollution is located;

(4) establish technical advisory committees composed of recognized experts in various aspects of air pollution to assist in the examination and evaluation of research progress and proposals and to avoid duplication of research; and

(5) conduct and promote coordination and acceleration of training for individuals relating to the causes, effects, extent, prevention, and control of air pollution.

**(b) Authorized activities of Administrator in establishing research and development program**

In carrying out the provisions of the preceding subsection the Administrator is authorized to—

(1) collect and make available, through publications and other appropriate means, the results of and other information, including appropriate recommendations by him in connection therewith, pertaining to such research and other activities;

(2) cooperate with other Federal departments and agencies, with air pollution control agencies, with other public and private agencies, institutions, and organizations, and with any industries involved, in the preparation and conduct of such research and other activities;

(3) make grants to air pollution control agencies, to other public or nonprofit private agencies, institutions, and organizations, and to individuals, for purposes stated in subsection (a)(1) of this section;

#### PILOT DESIGN PROGRAMS

Pub. L. 106-246, div. B, title II, § 2603, July 13, 2000, 114 Stat. 558, required the Administrator of the Environmental Protection Agency to make grants to carry out a 2-year program to implement in five metropolitan areas pilot design programs and report to Congress on the results not later than 360 days from first day of the second year of the 2-year program.

#### NATIONAL ACID LAKES REGISTRY

Pub. L. 101-549, title IV, § 405, Nov. 15, 1990, 104 Stat. 2632, provided that: "The Administrator of the Environmental Protection Agency shall create a National Acid Lakes Registry that shall list, to the extent practical, all lakes that are known to be acidified due to acid deposition, and shall publish such list within one year of the enactment of this Act (Nov. 15, 1990). Lakes shall be added to the registry as they become acidic or as data becomes available to show they are acidic. Lakes shall be deleted from the registry as they become non-acidic."

#### ASSESSMENT OF INTERNATIONAL AIR POLLUTION CONTROL TECHNOLOGIES

Pub. L. 101-549, title IX, § 901(e), Nov. 15, 1990, 104 Stat. 2706, directed Administrator of Environmental Protection Agency to conduct a study that compares international air pollution control technologies of selected industrialized countries to determine if there exist air pollution control technologies in countries outside the United States that may have beneficial applications to this Nation's air pollution control efforts, including, with respect to each country studied, the topics of urban air quality, motor vehicle emissions, toxic air emissions, and acid deposition, and within 2 years after Nov. 15, 1990, submit to Congress a report detailing the results of such study.

#### WESTERN STATES ACID DEPOSITION RESEARCH

Pub. L. 101-549, title IX, § 901(g), Nov. 15, 1990, 104 Stat. 2707, provided that:

"(1) The Administrator of the Environmental Protection Agency shall sponsor monitoring and research and submit to Congress annual and periodic assessment reports on—

"(A) the occurrence and effects of acid deposition on surface waters located in that part of the United States west of the Mississippi River;

"(B) the occurrence and effects of acid deposition on high elevation ecosystems (including forests, and surface waters); and

"(C) the occurrence and effects of episodic acidification, particularly with respect to high elevation watersheds.

"(2) The Administrator of the Environmental Protection Agency shall analyze data generated from the studies conducted under paragraph (1), data from the Western Lakes Survey, and other appropriate research and utilize predictive modeling techniques that take into account the unique geographic, climatological, and atmospheric conditions which exist in the western United States to determine the potential occurrence and effects of acid deposition due to any projected increases in the emission of sulfur dioxide and nitrogen oxides in that part of the United States located west of the Mississippi River. The Administrator shall include the results of the project conducted under this paragraph in the reports issued to Congress under paragraph (1)."

#### CONSULTATION WITH AND TRANSMISSION OF REPORTS AND STUDIES TO CONGRESSIONAL COMMITTEE

Pub. L. 95-95, title I, § 101(c), Aug. 7, 1977, 91 Stat. 687, provided that: "The Administrator of the Environmental Protection Agency shall consult with the House Committee on Science and Technology [now Committee on Science, Space, and Technology] on the environmental and atmospheric research, development, and

demonstration aspects of this Act [see Short Title of 1977 Amendment note set out under section 7401 of this title]. In addition, the reports and studies required by this Act that relate to research, development, and demonstration issues shall be transmitted to the Committee on Science and Technology [now Committee on Science, Space, and Technology] at the same time they are made available to other committees of the Congress."

#### STUDY OF SUBSTANCES DISCHARGED FROM EXHAUSTS OF MOTOR VEHICLES

Pub. L. 86-493, June 8, 1960, 74 Stat. 162, directed Surgeon General of Public Health Service to conduct a thorough study for purposes of determining, with respect to the various substances discharged from exhausts of motor vehicles, the amounts and kinds of such substances which, from the standpoint of human health, it is safe for motor vehicles to discharge into the atmosphere under the various conditions under which such vehicles may operate, and, not later than two years after June 8, 1960, submit to Congress a report on results of the study, together with such recommendations, if any, based upon the findings made in such study, as he deemed necessary for the protection of the public health.

#### § 7404. Research relating to fuels and vehicles

##### (a) Research programs; grants; contracts; pilot and demonstration plants; byproducts research

The Administrator shall give special emphasis to research and development into new and improved methods, having industry-wide application, for the prevention and control of air pollution resulting from the combustion of fuels. In furtherance of such research and development he shall—

(1) conduct and accelerate research programs directed toward development of improved, cost-effective techniques for—

(A) control of combustion byproducts of fuels,

(B) removal of potential air pollutants from fuels prior to combustion,

(C) control of emissions from the evaporation of fuels,

(D) improving the efficiency of fuels combustion so as to decrease atmospheric emissions, and

(E) producing synthetic or new fuels which, when used, result in decreased atmospheric emissions.<sup>1</sup>

(2) provide for Federal grants to public or nonprofit agencies, institutions, and organizations and to individuals, and contracts with public or private agencies, institutions, or persons, for payment of (A) part of the cost of acquiring, constructing, or otherwise securing for research and development purposes, new or improved devices or methods having industry-wide application of preventing or controlling discharges into the air of various types of pollutants; (B) part of the cost of programs to develop low emission alternatives to the present internal combustion engine; (C) the cost to purchase vehicles and vehicle engines, or portions thereof, for research, development, and testing purposes; and (D) carrying out the other provisions of this section, without re-

<sup>1</sup> So in original. The period probably should be a semicolon.

gard to section 3324(a) and (b) of title 31 and section 6101 of title 41: *Provided*, That research or demonstration contracts awarded pursuant to this subsection (including contracts for construction) may be made in accordance with, and subject to the limitations provided with respect to research contracts of the military departments in, section 2353<sup>2</sup> of title 10, except that the determination, approval, and certification required thereby shall be made by the Administrator; *Provided further*, That no grant may be made under this paragraph in excess of \$1,500,000;

(3) determine, by laboratory and pilot plant testing, the results of air pollution research and studies in order to develop new or improved processes and plant designs to the point where they can be demonstrated on a large and practical scale;

(4) construct, operate, and maintain, or assist in meeting the cost of the construction, operation, and maintenance of new or improved demonstration plants or processes which have promise of accomplishing the purposes of this chapter;<sup>3</sup>

(5) study new or improved methods for the recovery and marketing of commercially valuable byproducts resulting from the removal of pollutants.

**(b) Powers of Administrator in establishing research and development programs**

In carrying out the provisions of this section, the Administrator may—

(1) conduct and accelerate research and development of cost-effective instrumentation techniques to facilitate determination of quantity and quality of air pollutant emissions, including, but not limited to, automotive emissions;

(2) utilize, on a reimbursable basis, the facilities of existing Federal scientific laboratories;

(3) establish and operate necessary facilities and test sites at which to carry on the research, testing, development, and programming necessary to effectuate the purposes of this section;

(4) acquire secret processes, technical data, inventions, patent applications, patents, licenses, and an interest in lands, plants, and facilities, and other property or rights by purchase, license, lease, or donation; and

(5) cause on-site inspections to be made of promising domestic and foreign projects, and cooperate and participate in their development in instances in which the purposes of the chapter will be served thereby.

**(c) Clean alternative fuels**

The Administrator shall conduct a research program to identify, characterize, and predict air emissions related to the production, distribution, storage, and use of clean alternative fuels to determine the risks and benefits to human health and the environment relative to those from using conventional gasoline and diesel fuels. The Administrator shall consult with other Federal agencies to ensure coordination

and to avoid duplication of activities authorized under this subsection.

(July 14, 1955, ch. 360, title I, §104, as added Pub. L. 90-148, §2, Nov. 21, 1967, 81 Stat. 487; amended Pub. L. 91-137, Dec. 5, 1969, 83 Stat. 283; Pub. L. 91-604, §§2(b), (c), 13(a), 15(c)(2), Dec. 31, 1970, 84 Stat. 1676, 1677, 1709, 1713; Pub. L. 93-15, §1(a), Apr. 9, 1973, 87 Stat. 11; Pub. L. 93-319, §13(a), June 22, 1974, 88 Stat. 265; Pub. L. 101-549, title IX, §901(d), Nov. 15, 1990, 104 Stat. 2706.)

**Editorial Notes**

**REFERENCES IN TEXT**

Section 2353 of title 10, referred to in subsec. (a)(2), was renumbered section 4174 of title 10 by Pub. L. 116-283, div. A, title XVIII, §1844(b)(1), Jan. 1, 2021, 134 Stat. 4245, as amended by Pub. L. 117-81, div. A, title XVII, §1701(u)(6)(B), Dec. 27, 2021, 135 Stat. 2154.

**CODIFICATION**

In subsec. (a)(2)(D), “section 3324(a) and (b) of title 31 and section 6101 of title 41” substituted for “sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5)” on authority of Pub. L. 97-258, §4(b), Sept. 13, 1982, 96 Stat. 1067, which Act enacted Title 31, Money and Finance, and Pub. L. 111-350, §6(c), Jan. 4, 2011, 124 Stat. 3854, which Act enacted Title 41, Public Contracts.

Section was formerly classified to section 1857b-1 of this title.

**PRIOR PROVISIONS**

A prior section 104 of act July 14, 1955, was renumbered section 105 by Pub. L. 90-148 and is classified to section 7405 of this title.

**AMENDMENTS**

1990—Subsecs. (a)(1), (b)(1). Pub. L. 101-549, §901(d)(1), substituted “cost-effective” for “low-cost”.

Subsec. (c). Pub. L. 101-549, §901(d)(2), amended subsec. (c) generally. Prior to amendment, subsec. (c) read as follows: “For the purposes of this section there are authorized to be appropriated \$75,000,000 for the fiscal year ending June 30, 1971, \$125,000,000 for the fiscal year ending June 30, 1972, \$150,000,000 for the fiscal year ending June 30, 1973, and \$150,000,000 for the fiscal year ending June 30, 1974, and \$150,000,000 for the fiscal year ending June 30, 1975. Amounts appropriated pursuant to this subsection shall remain available until expended.”

1974—Subsec. (c). Pub. L. 93-319 authorized appropriation of \$150,000,000 for fiscal year ending June 30, 1975.

1973—Subsec. (c). Pub. L. 93-15 authorized appropriation of \$150,000,000 for fiscal year ending June 30, 1974.

1970—Subsec. (a). Pub. L. 91-604, §15(c)(2), substituted “Administrator” for “Secretary”.

Subsec. (a)(1). Pub. L. 91-604, §2(b), inserted provisions authorizing research programs directed toward development of techniques for improving the efficiency of fuels combustion so as to decrease atmospheric emissions, and producing synthetic or new fuels which result in decreased atmospheric emissions.

Subsec. (a)(2). Pub. L. 91-604, §2(c), added cls. (B) and (C) and redesignated former cl. (B) as (D).

Subsec. (b). Pub. L. 91-604, §15(c)(2), substituted “Administrator” for “Secretary”.

Subsec. (c). Pub. L. 91-604, §13(a), substituted provisions authorizing appropriations for fiscal years ending June 30, 1971, 1972, and 1973, for provisions authorizing appropriations for fiscal years ending June 30, 1968 and 1969.

1969—Subsec. (c). Pub. L. 91-137 authorized appropriation of \$45,000,000 for fiscal year ending June 30, 1970.

**Statutory Notes and Related Subsidiaries**

**HYDROGEN FUEL CELL VEHICLE STUDY AND TEST PROGRAM**

Pub. L. 101-549, title VIII, §807, Nov. 15, 1990, 104 Stat. 2689, provided that the Administrator of the Environ-

<sup>2</sup> See References in Text note below.

<sup>3</sup> So in original. The word “and” probably should appear.



mental Protection Agency, in conjunction with the National Aeronautics and Space Administration and the Department of Energy, would conduct a study, performed in the university or universities which are best exhibiting the facilities and expertise to develop such a fuel cell vehicle and test program on the development of a hydrogen fuel cell electric vehicle, to determine how best to transfer existing NASA hydrogen fuel cell technology into the form of a mass-producible, cost effective hydrogen fuel cell vehicle and include at a minimum a feasibility-design study, the construction of a prototype, and a demonstration, and provided that the study and test program were to be completed and a report submitted to Congress within 3 years after Nov. 15, 1990.

#### COMBUSTION OF CONTAMINATED USED OIL IN SHIPS

Pub. L. 101-549, title VIII, §813, Nov. 15, 1990, 104 Stat. 2693, directed that within 2 years after Nov. 15, 1990, the Administrator of the Environmental Protection Agency was to complete a study and submit a report to Congress evaluating the health and environmental impacts of the combustion of contaminated used oil in ships, the reasons for using such oil, the alternatives, and the costs of such alternatives, and other relevant factors and impacts.

#### EXTENSION TO AUG. 31, 1970 OF AUTHORIZATION PERIOD FOR FISCAL YEAR 1970

Pub. L. 91-316, July 10, 1970, 84 Stat. 416, provided in part that the authorization contained in section 104(c) of the Clean Air Act [subsec. (c) of this section] for the fiscal year ending June 30, 1970, should remain available through Aug. 31, 1970, notwithstanding any provisions of this section.

### § 7405. Grants for support of air pollution planning and control programs

#### (a) Amounts; limitations; assurances of plan development capability

(1)(A) The Administrator may make grants to air pollution control agencies, within the meaning of paragraph (1), (2), (3), (4), or (5) of section 7602 of this title, in an amount up to three-fifths of the cost of implementing programs for the prevention and control of air pollution or implementation of national primary and secondary ambient air quality standards. For the purpose of this section, “implementing” means any activity related to the planning, developing, establishing, carrying-out, improving, or maintaining of such programs.

(B) Subject to subsections (b) and (c) of this section, an air pollution control agency which receives a grant under subparagraph (A) and which contributes less than the required two-fifths minimum shall have 3 years following November 15, 1990, in which to contribute such amount. If such an agency fails to meet and maintain this required level, the Administrator shall reduce the amount of the Federal contribution accordingly.

(C) With respect to any air quality control region or portion thereof for which there is an applicable implementation plan under section 7410 of this title, grants under subparagraph (A) may be made only to air pollution control agencies which have substantial responsibilities for carrying out such applicable implementation plan.

(2) Before approving any grant under this subsection to any air pollution control agency within the meaning of sections 7602(b)(2) and 7602(b)(4) of this title, the Administrator shall receive assurances that such agency provides for

adequate representation of appropriate State, interstate, local, and (when appropriate) international, interests in the air quality control region.

(3) Before approving any planning grant under this subsection to any air pollution control agency within the meaning of sections 7602(b)(2) and 7602(b)(4) of this title, the Administrator shall receive assurances that such agency has the capability of developing a comprehensive air quality plan for the air quality control region, which plan shall include (when appropriate) a recommended system of alerts to avert and reduce the risk of situations in which there may be imminent and serious danger to the public health or welfare from air pollutants and the various aspects relevant to the establishment of air quality standards for such air quality control region, including the concentration of industries, other commercial establishments, population and naturally occurring factors which shall affect such standards.

#### (b) Terms and conditions; regulations; factors for consideration; State expenditure limitations

(1) From the sums available for the purposes of subsection (a) of this section for any fiscal year, the Administrator shall from time to time make grants to air pollution control agencies upon such terms and conditions as the Administrator may find necessary to carry out the purpose of this section. In establishing regulations for the granting of such funds the Administrator shall, so far as practicable, give due consideration to (A) the population, (B) the extent of the actual or potential air pollution problem, and (C) the financial need of the respective agencies.

(2) Not more than 10 per centum of the total of funds appropriated or allocated for the purposes of subsection (a) of this section shall be granted for air pollution control programs in any one State. In the case of a grant for a program in an area crossing State boundaries, the Administrator shall determine the portion of such grant that is chargeable to the percentage limitation under this subsection for each State into which such area extends. Subject to the provisions of paragraph (1) of this subsection, no State shall have made available to it for application less than one-half of 1 per centum of the annual appropriation for grants under this section for grants to agencies within such State.

#### (c) Maintenance of effort

(1) No agency shall receive any grant under this section during any fiscal year when its expenditures of non-Federal funds for recurrent expenditures for air pollution control programs will be less than its expenditures were for such programs during the preceding fiscal year. In order for the Administrator to award grants under this section in a timely manner each fiscal year, the Administrator shall compare an agency's prospective expenditure level to that of its second preceding fiscal year. The Administrator shall revise the current regulations which define applicable nonrecurrent and recurrent expenditures, and in so doing, give due consideration to exempting an agency from the limitations of this paragraph and subsection (a) due to periodic increases experienced by that agency from time to time in its annual expenditures for

SUBCHAPTER II—EMISSION STANDARDS  
FOR MOVING SOURCES

PART A—MOTOR VEHICLE EMISSION AND FUEL  
STANDARDS

**§ 7521. Emission standards for new motor vehicles or new motor vehicle engines**

**(a) Authority of Administrator to prescribe by regulation**

Except as otherwise provided in subsection (b)—

(1) The Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. Such standards shall be applicable to such vehicles and engines for their useful life (as determined under subsection (d), relating to useful life of vehicles for purposes of certification), whether such vehicles and engines are designed as complete systems or incorporate devices to prevent or control such pollution.

(2) Any regulation prescribed under paragraph (1) of this subsection (and any revision thereof) shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.

(3)(A) IN GENERAL.—(i) Unless the standard is changed as provided in subparagraph (B), regulations under paragraph (1) of this subsection applicable to emissions of hydrocarbons, carbon monoxide, oxides of nitrogen, and particulate matter from classes or categories of heavy-duty vehicles or engines manufactured during or after model year 1983 shall contain standards which reflect the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the model year to which such standards apply, giving appropriate consideration to cost, energy, and safety factors associated with the application of such technology.

(ii) In establishing classes or categories of vehicles or engines for purposes of regulations under this paragraph, the Administrator may base such classes or categories on gross vehicle weight, horsepower, type of fuel used, or other appropriate factors.

(B) REVISED STANDARDS FOR HEAVY DUTY TRUCKS.—(i) On the basis of information available to the Administrator concerning the effects of air pollutants emitted from heavy-duty vehicles or engines and from other sources of mobile source related pollutants on the public health and welfare, and taking costs into account, the Administrator may promulgate regulations under paragraph (1) of this subsection revising any standard promulgated under, or before the date of, the enactment of the Clean Air Act Amendments of 1990 (or previously revised under this subparagraph) and applicable to classes or categories of heavy-duty vehicles or engines.

(ii) Effective for the model year 1998 and thereafter, the regulations under paragraph (1) of this

subsection applicable to emissions of oxides of nitrogen (NO<sub>x</sub>) from gasoline and diesel-fueled heavy duty trucks shall contain standards which provide that such emissions may not exceed 4.0 grams per brake horsepower hour (gbh).

(C) LEAD TIME AND STABILITY.—Any standard promulgated or revised under this paragraph and applicable to classes or categories of heavy-duty vehicles or engines shall apply for a period of no less than 3 model years beginning no earlier than the model year commencing 4 years after such revised standard is promulgated.

(D) REBUILDING PRACTICES.—The Administrator shall study the practice of rebuilding heavy-duty engines and the impact rebuilding has on engine emissions. On the basis of that study and other information available to the Administrator, the Administrator may prescribe requirements to control rebuilding practices, including standards applicable to emissions from any rebuilt heavy-duty engines (whether or not the engine is past its statutory useful life), which in the Administrator's judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare taking costs into account. Any regulation shall take effect after a period the Administrator finds necessary to permit the development and application of the requisite control measures, giving appropriate consideration to the cost of compliance within the period and energy and safety factors.

(E) MOTORCYCLES.—For purposes of this paragraph, motorcycles and motorcycle engines shall be treated in the same manner as heavy-duty vehicles and engines (except as otherwise permitted under section 7525(f)(1)<sup>1</sup> of this title) unless the Administrator promulgates a rule reclassifying motorcycles as light-duty vehicles within the meaning of this section or unless the Administrator promulgates regulations under subsection (a) applying standards applicable to the emission of air pollutants from motorcycles as a separate class or category. In any case in which such standards are promulgated for such emissions from motorcycles as a separate class or category, the Administrator, in promulgating such standards, shall consider the need to achieve equivalency of emission reductions between motorcycles and other motor vehicles to the maximum extent practicable.

(4)(A) Effective with respect to vehicles and engines manufactured after model year 1978, no emission control device, system, or element of design shall be used in a new motor vehicle or new motor vehicle engine for purposes of complying with requirements prescribed under this subchapter if such device, system, or element of design will cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation or function.

(B) In determining whether an unreasonable risk exists under subparagraph (A), the Administrator shall consider, among other factors, (i) whether and to what extent the use of any device, system, or element of design causes, increases, reduces, or eliminates emissions of any unregulated pollutants; (ii) available methods for reducing or eliminating any risk to public

<sup>1</sup> See References in Text note below.



health, welfare, or safety which may be associated with the use of such device, system, or element of design, and (iii) the availability of other devices, systems, or elements of design which may be used to conform to requirements prescribed under this subchapter without causing or contributing to such unreasonable risk. The Administrator shall include in the consideration required by this paragraph all relevant information developed pursuant to section 7548 of this title.

(5)(A) If the Administrator promulgates final regulations which define the degree of control required and the test procedures by which compliance could be determined for gasoline vapor recovery of uncontrolled emissions from the fueling of motor vehicles, the Administrator shall, after consultation with the Secretary of Transportation with respect to motor vehicle safety, prescribe, by regulation, fill pipe standards for new motor vehicles in order to insure effective connection between such fill pipe and any vapor recovery system which the Administrator determines may be required to comply with such vapor recovery regulations. In promulgating such standards the Administrator shall take into consideration limits on fill pipe diameter, minimum design criteria for nozzle retainer lips, limits on the location of the unleaded fuel restrictors, a minimum access zone surrounding a fill pipe, a minimum pipe or nozzle insertion angle, and such other factors as he deems pertinent.

(B) Regulations prescribing standards under subparagraph (A) shall not become effective until the introduction of the model year for which it would be feasible to implement such standards, taking into consideration the restraints of an adequate leadtime for design and production.

(C) Nothing in subparagraph (A) shall (i) prevent the Administrator from specifying different nozzle and fill neck sizes for gasoline with additives and gasoline without additives or (ii) permit the Administrator to require a specific location, configuration, modeling, or styling of the motor vehicle body with respect to the fuel tank fill neck or fill nozzle clearance envelope.

(D) For the purpose of this paragraph, the term "fill pipe" shall include the fuel tank fill pipe, fill neck, fill inlet, and closure.

(6) ONBOARD VAPOR RECOVERY.—Within 1 year after November 15, 1990, the Administrator shall, after consultation with the Secretary of Transportation regarding the safety of vehicle-based ("onboard") systems for the control of vehicle refueling emissions, promulgate standards under this section requiring that new light-duty vehicles manufactured beginning in the fourth model year after the model year in which the standards are promulgated and thereafter shall be equipped with such systems. The standards required under this paragraph shall apply to a percentage of each manufacturer's fleet of new light-duty vehicles beginning with the fourth model year after the model year in which the standards are promulgated. The percentage shall be as specified in the following table:

IMPLEMENTATION SCHEDULE FOR ONBOARD VAPOR RECOVERY REQUIREMENTS

Model year commencing after standards promulgated	Percentage*
Fourth .....	40
Fifth .....	80
After Fifth .....	100

\*Percentages in the table refer to a percentage of the manufacturer's sales volume.

The standards shall require that such systems provide a minimum evaporative emission capture efficiency of 95 percent. The requirements of section 7511a(b)(3) of this title (relating to stage II gasoline vapor recovery) for areas classified under section 7511 of this title as moderate for ozone shall not apply after promulgation of such standards and the Administrator may, by rule, revise or waive the application of the requirements of such section 7511a(b)(3) of this title for areas classified under section 7511 of this title as Serious, Severe, or Extreme for ozone, as appropriate, after such time as the Administrator determines that onboard emissions control systems required under this paragraph are in widespread use throughout the motor vehicle fleet.

**(b) Emissions of carbon monoxide, hydrocarbons, and oxides of nitrogen; annual report to Congress; waiver of emission standards; research objectives**

(1)(A) The regulations under subsection (a) applicable to emissions of carbon monoxide and hydrocarbons from light-duty vehicles and engines manufactured during model years 1977 through 1979 shall contain standards which provide that such emissions from such vehicles and engines may not exceed 1.5 grams per vehicle mile of hydrocarbons and 15.0 grams per vehicle mile of carbon monoxide. The regulations under subsection (a) applicable to emissions of carbon monoxide from light-duty vehicles and engines manufactured during the model year 1980 shall contain standards which provide that such emissions may not exceed 7.0 grams per vehicle mile. The regulations under subsection (a) applicable to emissions of hydrocarbons from light-duty vehicles and engines manufactured during or after model year 1980 shall contain standards which require a reduction of at least 90 percent from emissions of such pollutant allowable under the standards under this section applicable to light-duty vehicles and engines manufactured in model year 1970. Unless waived as provided in paragraph (5),<sup>1</sup> regulations under subsection (a) applicable to emissions of carbon monoxide from light-duty vehicles and engines manufactured during or after the model year 1981 shall contain standards which require a reduction of at least 90 percent from emissions of such pollutant allowable under the standards under this section applicable to light-duty vehicles and engines manufactured in model year 1970.

(B) The regulations under subsection (a) applicable to emissions of oxides of nitrogen from light-duty vehicles and engines manufactured during model years 1977 through 1980 shall contain standards which provide that such emissions from such vehicles and engines may not

exceed 2.0 grams per vehicle mile. The regulations under subsection (a) applicable to emissions of oxides of nitrogen from light-duty vehicles and engines manufactured during the model year 1981 and thereafter shall contain standards which provide that such emissions from such vehicles and engines may not exceed 1.0 gram per vehicle mile. The Administrator shall prescribe standards in lieu of those required by the preceding sentence, which provide that emissions of oxides of nitrogen may not exceed 2.0 grams per vehicle mile for any light-duty vehicle manufactured during model years 1981 and 1982 by any manufacturer whose production, by corporate identity, for calendar year 1976 was less than three hundred thousand light-duty motor vehicles worldwide if the Administrator determines that—

(i) the ability of such manufacturer to meet emission standards in the 1975 and subsequent model years was, and is, primarily dependent upon technology developed by other manufacturers and purchased from such manufacturers; and

(ii) such manufacturer lacks the financial resources and technological ability to develop such technology.

(C) The Administrator may promulgate regulations under subsection (a)(1) revising any standard prescribed or previously revised under this subsection, as needed to protect public health or welfare, taking costs, energy, and safety into account. Any revised standard shall require a reduction of emissions from the standard that was previously applicable. Any such revision under this subchapter may provide for a phase-in of the standard. It is the intent of Congress that the numerical emission standards specified in subsections (a)(3)(B)(ii), (g), (h), and (i) shall not be modified by the Administrator after November 15, 1990, for any model year before the model year 2004.

(2) Emission standards under paragraph (1), and measurement techniques on which such standards are based (if not promulgated prior to November 15, 1990), shall be promulgated by regulation within 180 days after November 15, 1990.

(3) For purposes of this part—

(A)(i) The term “model year” with reference to any specific calendar year means the manufacturer’s annual production period (as determined by the Administrator) which includes January 1 of such calendar year. If the manufacturer has no annual production period, the term “model year” shall mean the calendar year.

(ii) For the purpose of assuring that vehicles and engines manufactured before the beginning of a model year were not manufactured for purposes of circumventing the effective date of a standard required to be prescribed by subsection (b), the Administrator may prescribe regulations defining “model year” otherwise than as provided in clause (i).

(B) Repealed. Pub. L. 101-549, title II, § 230(1), Nov. 15, 1990, 104 Stat. 2529.

(C) The term “heavy duty vehicle” means a truck, bus, or other vehicle manufactured primarily for use on the public streets, roads, and highways (not including any vehicle operated exclusively on a rail or rails) which has a

gross vehicle weight (as determined under regulations promulgated by the Administrator) in excess of six thousand pounds. Such term includes any such vehicle which has special features enabling off-street or off-highway operation and use.

(3)<sup>2</sup> Upon the petition of any manufacturer, the Administrator, after notice and opportunity for public hearing, may waive the standard required under subparagraph (B) of paragraph (1) to not exceed 1.5 grams of oxides of nitrogen per vehicle mile for any class or category of light-duty vehicles or engines manufactured by such manufacturer during any period of up to four model years beginning after the model year 1980 if the manufacturer demonstrates that such waiver is necessary to permit the use of an innovative power train technology, or innovative emission control device or system, in such class or category of vehicles or engines and that such technology or system was not utilized by more than 1 percent of the light-duty vehicles sold in the United States in the 1975 model year. Such waiver may be granted only if the Administrator determines—

(A) that such waiver would not endanger public health,

(B) that there is a substantial likelihood that the vehicles or engines will be able to comply with the applicable standard under this section at the expiration of the waiver, and

(C) that the technology or system has a potential for long-term air quality benefit and has the potential to meet or exceed the average fuel economy standard applicable under the Energy Policy and Conservation Act [42 U.S.C. 6201 et seq.] upon the expiration of the waiver.

No waiver under this subparagraph<sup>3</sup> granted to any manufacturer shall apply to more than 5 percent of such manufacturer’s production or more than fifty thousand vehicles or engines, whichever is greater.

**(c) Feasibility study and investigation by National Academy of Sciences; reports to Administrator and Congress; availability of information**

(1) The Administrator shall undertake to enter into appropriate arrangements with the National Academy of Sciences to conduct a comprehensive study and investigation of the technological feasibility of meeting the emissions standards required to be prescribed by the Administrator by subsection (b) of this section.

(2) Of the funds authorized to be appropriated to the Administrator by this chapter, such amounts as are required shall be available to carry out the study and investigation authorized by paragraph (1) of this subsection.

(3) In entering into any arrangement with the National Academy of Sciences for conducting the study and investigation authorized by paragraph (1) of this subsection, the Administrator shall request the National Academy of Sciences to submit semiannual reports on the progress of

<sup>2</sup> So in original. Probably should be “(4)”.

<sup>3</sup> So in original. Probably should be “paragraph”.

its study and investigation to the Administrator and the Congress, beginning not later than July 1, 1971, and continuing until such study and investigation is completed.

(4) The Administrator shall furnish to such Academy at its request any information which the Academy deems necessary for the purpose of conducting the investigation and study authorized by paragraph (1) of this subsection. For the purpose of furnishing such information, the Administrator may use any authority he has under this chapter (A) to obtain information from any person, and (B) to require such person to conduct such tests, keep such records, and make such reports respecting research or other activities conducted by such person as may be reasonably necessary to carry out this subsection.

**(d) Useful life of vehicles**

The Administrator shall prescribe regulations under which the useful life of vehicles and engines shall be determined for purposes of subsection (a)(1) of this section and section 7541 of this title. Such regulations shall provide that except where a different useful life period is specified in this subchapter useful life shall—

(1) in the case of light duty vehicles and light duty vehicle engines and light-duty trucks up to 3,750 lbs. LVW and up to 6,000 lbs. GVWR, be a period of use of five years or fifty thousand miles (or the equivalent), whichever first occurs, except that in the case of any requirement of this section which first becomes applicable after November 15, 1990, where the useful life period is not otherwise specified for such vehicles and engines, the period shall be 10 years or 100,000 miles (or the equivalent), whichever first occurs, with testing for purposes of in-use compliance under section 7541 of this title up to (but not beyond) 7 years or 75,000 miles (or the equivalent), whichever first occurs;

(2) in the case of any other motor vehicle or motor vehicle engine (other than motorcycles or motorcycle engines), be a period of use set forth in paragraph (1) unless the Administrator determines that a period of use of greater duration or mileage is appropriate; and

(3) in the case of any motorcycle or motorcycle engine, be a period of use the Administrator shall determine.

**(e) New power sources or propulsion systems**

In the event of a new power source or propulsion system for new motor vehicles or new motor vehicle engines is submitted for certification pursuant to section 7525(a) of this title, the Administrator may postpone certification until he has prescribed standards for any air pollutants emitted by such vehicle or engine which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger the public health or welfare but for which standards have not been prescribed under subsection (a).

**(f) <sup>4</sup> High altitude regulations**

(1) The high altitude regulation in effect with respect to model year 1977 motor vehicles shall not apply to the manufacture, distribution, or sale of 1978 and later model year motor vehicles. Any future regulation affecting the sale or distribution of motor vehicles or engines manufactured before the model year 1984 in high altitude areas of the country shall take effect no earlier than model year 1981.

(2) Any such future regulation applicable to high altitude vehicles or engines shall not require a percentage of reduction in the emissions of such vehicles which is greater than the required percentage of reduction in emissions from motor vehicles as set forth in subsection (b). This percentage reduction shall be determined by comparing any proposed high altitude emission standards to high altitude emissions from vehicles manufactured during model year 1970. In no event shall regulations applicable to high altitude vehicles manufactured before the model year 1984 establish a numerical standard which is more stringent than that applicable to vehicles certified under non-high altitude conditions.

(3) Section 7607(d) of this title shall apply to any high altitude regulation referred to in paragraph (2) and before promulgating any such regulation, the Administrator shall consider and make a finding with respect to—

(A) the economic impact upon consumers, individual high altitude dealers, and the automobile industry of any such regulation, including the economic impact which was experienced as a result of the regulation imposed during model year 1977 with respect to high altitude certification requirements;

(B) the present and future availability of emission control technology capable of meeting the applicable vehicle and engine emission requirements without reducing model availability; and

(C) the likelihood that the adoption of such a high altitude regulation will result in any significant improvement in air quality in any area to which it shall apply.

**(g) Light-duty trucks up to 6,000 lbs. GVWR and light-duty vehicles; standards for model years after 1993**

**(1) NMHC, CO, and NO<sub>x</sub>**

Effective with respect to the model year 1994 and thereafter, the regulations under subsection (a) applicable to emissions of non-methane hydrocarbons (NMHC), carbon monoxide (CO), and oxides of nitrogen (NO<sub>x</sub>) from light-duty trucks (LDTs) of up to 6,000 lbs. gross vehicle weight rating (GVWR) and light-duty vehicles (LDVs) shall contain standards which provide that emissions from a percentage of each manufacturer's sales volume of such vehicles and trucks shall comply with the levels specified in table G. The percentage shall be as specified in the implementation schedule below:

<sup>4</sup> Another subsec. (f) is set out after subsec. (m).



TABLE G—EMISSION STANDARDS FOR NMHC, CO, AND NO<sub>x</sub> FROM LIGHT-DUTY TRUCKS OF UP TO 6,000 LBS. GVWR AND LIGHT-DUTY VEHICLES

Vehicle type	Column A			Column B		
	(5 yrs/50,000 mi)			(10 yrs/100,000 mi)		
	NMHC	CO	NO <sub>x</sub>	NMHC	CO	NO <sub>x</sub>
LDTs (0–3,750 lbs. LVW) and light-duty vehicles .....	0.25	3.4	0.4*	0.31	4.2	0.6*
LDTs (3,751–5,750 lbs. LVW) .....	0.32	4.4	0.7**	0.40	5.5	0.97

Standards are expressed in grams per mile (gpm).

For standards under column A, for purposes of certification under section 7525 of this title, the applicable useful life shall be 5 years or 50,000 miles (or the equivalent), whichever first occurs.

For standards under column B, for purposes of certification under section 7525 of this title, the applicable useful life shall be 10 years or 100,000 miles (or the equivalent), whichever first occurs.

\*In the case of diesel-fueled LDTs (0–3,750 lbs. LVW) and light-duty vehicles, before the model year 2004, in lieu of the 0.4 and 0.6 standards for NO<sub>x</sub>, the applicable standards for NO<sub>x</sub> shall be 1.0 gpm for a useful life of 5 years or 50,000 miles (or the equivalent), whichever first occurs, and 1.25 gpm for a useful life of 10 years or 100,000 miles (or the equivalent) whichever first occurs.

\*\*This standard does not apply to diesel-fueled LDTs (3,751–5,750 lbs. LVW).

#### IMPLEMENTATION SCHEDULE FOR TABLE G STANDARDS

Model year	Percentage*
1994 .....	40
1995 .....	80
after 1995 .....	100

\*Percentages in the table refer to a percentage of each manufacturer's sales volume.

#### (2) PM Standard

Effective with respect to model year 1994 and thereafter in the case of light-duty vehicles, and effective with respect to the model year 1995 and thereafter in the case of light-duty trucks (LDTs) of up to 6,000 lbs. gross vehicle weight rating (GVWR), the regulations under subsection (a) applicable to emissions of particulate matter (PM) from such vehicles and trucks shall contain standards which provide that such emissions from a percentage of each manufacturer's sales volume of such vehicles and trucks shall not exceed the levels specified in the table below. The percentage shall be as specified in the Implementation Schedule below.

#### PM STANDARD FOR LDTs OF UP TO 6,000 LBS. GVWR

Useful life period	Standard
5/50,000 .....	0.08 gpm
10/100,000 .....	0.10 gpm

The applicable useful life, for purposes of certification under section 7525 of this title and for purposes of in-use compliance under section 7541 of this title, shall be 5 years or 50,000 miles (or the equivalent), whichever first occurs, in the case of the 5/50,000 standard.

TABLE H—EMISSION STANDARDS FOR NMHC AND CO FROM GASOLINE AND DIESEL FUELED LIGHT-DUTY TRUCKS OF MORE THAN 6,000 LBS. GVWR

LDT Test weight	Column A			Column B			
	(5 yrs/50,000 mi)			(11 yrs/120,000 mi)			
	NMHC	CO	NO <sub>x</sub>	NMHC	CO	NO <sub>x</sub>	PM
3,751–5,750 lbs. TW .....	0.32	4.4	0.7*	0.46	6.4	0.98	0.10
Over 5,750 lbs. TW .....	0.39	5.0	1.1*	0.56	7.3	1.53	0.12

Standards are expressed in grams per mile (GPM).

For standards under column A, for purposes of certification under section 7525 of this title, the applicable useful life shall be 5 years or 50,000 miles (or the equivalent) whichever first occurs.

The applicable useful life, for purposes of certification under section 7525 of this title and for purposes of in-use compliance under section 7541 of this title, shall be 10 years or 100,000 miles (or the equivalent), whichever first occurs in the case of the 10/100,000 standard.

#### IMPLEMENTATION SCHEDULE FOR PM STANDARDS

Model year	Light-duty vehicles	LDTs
1994 .....	40%*	
1995 .....	80%*	40%*
1996 .....	100%*	80%*
after 1996 .....	100%*	100%*

\*Percentages in the table refer to a percentage of each manufacturer's sales volume.

#### (h) Light-duty trucks of more than 6,000 lbs. GVWR; standards for model years after 1995

Effective with respect to the model year 1996 and thereafter, the regulations under subsection (a) applicable to emissions of nonmethane hydrocarbons (NMHC), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), and particulate matter (PM) from light-duty trucks (LDTs) of more than 6,000 lbs. gross vehicle weight rating (GVWR) shall contain standards which provide that emissions from a specified percentage of each manufacturer's sales volume of such trucks shall comply with the levels specified in table H. The specified percentage shall be 50 percent in model year 1996 and 100 percent thereafter.

For standards under column B, for purposes of certification under section 7525 of this title, the applicable useful life shall be 11 years or 120,000 miles (or the equivalent), whichever first occurs.

\*Not applicable to diesel-fueled LDTs.

**(i) Phase II study for certain light-duty vehicles and light-duty trucks**

(1) The Administrator, with the participation of the Office of Technology Assessment, shall study whether or not further reductions in emissions from light-duty vehicles and light-duty trucks should be required pursuant to this subchapter. The study shall consider whether to establish with respect to model years commencing after January 1, 2003, the standards and useful life period for gasoline and diesel-fueled light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less specified in the following table:

TABLE 3—PENDING EMISSION STANDARDS FOR GASOLINE AND DIESEL FUELED LIGHT-DUTY VEHICLES AND LIGHT-DUTY TRUCKS 3,750 LBS. LVW OR LESS

Pollutant	Emission level*
NMHC .....	0.125 GPM
NO <sub>x</sub> .....	0.2 GPM
CO .....	1.7 GPM

\*Emission levels are expressed in grams per mile (GPM). For vehicles and engines subject to this subsection for purposes of subsection (d) and any reference thereto, the useful life of such vehicles and engines shall be a period of 10 years or 100,000 miles (or the equivalent), whichever first occurs.

Such study shall also consider other standards and useful life periods which are more stringent or less stringent than those set forth in table 3 (but more stringent than those referred to in subsections (g) and (h)).

(2)(A) As part of the study under paragraph (1), the Administrator shall examine the need for further reductions in emissions in order to attain or maintain the national ambient air quality standards, taking into consideration the waiver provisions of section 7543(b) of this title. As part of such study, the Administrator shall also examine—

(i) the availability of technology (including the costs thereof), in the case of light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less, for meeting more stringent emission standards than those provided in subsections (g) and (h) for model years commencing not earlier than after January 1, 2003, and not later than model year 2006, including the lead time and safety and energy impacts of meeting more stringent emission standards; and

(ii) the need for, and cost effectiveness of, obtaining further reductions in emissions from such light-duty vehicles and light-duty trucks, taking into consideration alternative means of attaining or maintaining the national primary ambient air quality standards pursuant to State implementation plans and other requirements of this chapter, including their feasibility and cost effectiveness.

(B) The Administrator shall submit a report to Congress no later than June 1, 1997, containing the results of the study under this subsection, including the results of the examination conducted under subparagraph (A). Before sub-

mittal of such report the Administrator shall provide a reasonable opportunity for public comment and shall include a summary of such comments in the report to Congress.

(3)(A) Based on the study under paragraph (1) the Administrator shall determine, by rule, within 3 calendar years after the report is submitted to Congress, but not later than December 31, 1999, whether—

(i) there is a need for further reductions in emissions as provided in paragraph (2)(A);

(ii) the technology for meeting more stringent emission standards will be available, as provided in paragraph (2)(A)(i), in the case of light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less, for model years commencing not earlier than January 1, 2003, and not later than model year 2006, considering the factors listed in paragraph (2)(A)(i); and

(iii) obtaining further reductions in emissions from such vehicles will be needed and cost effective, taking into consideration alternatives as provided in paragraph (2)(A)(ii).

The rulemaking under this paragraph shall commence within 3 months after submission of the report to Congress under paragraph (2)(B).

(B) If the Administrator determines under subparagraph (A) that—

(i) there is no need for further reductions in emissions as provided in paragraph (2)(A);

(ii) the technology for meeting more stringent emission standards will not be available as provided in paragraph (2)(A)(i), in the case of light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less, for model years commencing not earlier than January 1, 2003, and not later than model year 2006, considering the factors listed in paragraph (2)(A)(i); or

(iii) obtaining further reductions in emissions from such vehicles will not be needed or cost effective, taking into consideration alternatives as provided in paragraph (2)(A)(ii),

the Administrator shall not promulgate more stringent standards than those in effect pursuant to subsections (g) and (h). Nothing in this paragraph shall prohibit the Administrator from exercising the Administrator's authority under subsection (a) to promulgate more stringent standards for light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less at any other time thereafter in accordance with subsection (a).

(C) If the Administrator determines under subparagraph (A) that—

(i) there is a need for further reductions in emissions as provided in paragraph (2)(A);

(ii) the technology for meeting more stringent emission standards will be available, as provided in paragraph (2)(A)(i), in the case of light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less, for model years commencing not earlier than January 1, 2003, and not later than model year 2006, considering the factors listed in paragraph (2)(A)(i); and

(iii) obtaining further reductions in emissions from such vehicles will be needed and cost effective, taking into consideration alternatives as provided in paragraph (2)(A)(ii),

the Administrator shall either promulgate the standards (and useful life periods) set forth in Table 3 in paragraph (1) or promulgate alternative standards (and useful life periods) which are more stringent than those referred to in subsections (g) and (h). Any such standards (or useful life periods) promulgated by the Administrator shall take effect with respect to any such vehicles or engines no earlier than the model year 2003 but not later than model year 2006, as determined by the Administrator in the rule.

(D) Nothing in this paragraph shall be construed by the Administrator or by a court as a presumption that any standards (or useful life period) set forth in Table 3 shall be promulgated in the rulemaking required under this paragraph. The action required of the Administrator in accordance with this paragraph shall be treated as a nondiscretionary duty for purposes of section 7604(a)(2) of this title (relating to citizen suits).

(E) Unless the Administrator determines not to promulgate more stringent standards as provided in subparagraph (B) or to postpone the effective date of standards referred to in Table 3 in paragraph (1) or to establish alternative standards as provided in subparagraph (C), effective with respect to model years commencing after January 1, 2003, the regulations under subsection (a) applicable to emissions of non-methane hydrocarbons (NMHC), oxides of nitrogen (NO<sub>x</sub>), and carbon monoxide (CO) from motor vehicles and motor vehicle engines in the classes specified in Table 3 in paragraph (1) above shall contain standards which provide that emissions may not exceed the pending emission levels specified in Table 3 in paragraph (1).

#### (j) Cold CO standard

##### (1) Phase I

Not later than 12 months after November 15, 1990, the Administrator shall promulgate regulations under subsection (a) of this section applicable to emissions of carbon monoxide from 1994 and later model year light-duty vehicles and light-duty trucks when operated at 20 degrees Fahrenheit. The regulations shall contain standards which provide that emissions of carbon monoxide from a manufacturer's vehicles when operated at 20 degrees Fahrenheit may not exceed, in the case of light-duty vehicles, 10.0 grams per mile, and in the case of light-duty trucks, a level comparable in stringency to the standard applicable to light-duty vehicles. The standards shall take effect after model year 1993 according to a phase-in schedule which requires a percentage of each manufacturer's sales volume of light-duty vehicles and light-duty trucks to comply with applicable standards after model year 1993. The percentage shall be as specified in the following table:

PHASE-IN SCHEDULE FOR COLD START STANDARDS

Model Year	Percentage
1994 .....	40
1995 .....	80
1996 and after .....	100

##### (2) Phase II

(A) Not later than June 1, 1997, the Administrator shall complete a study assessing the need for further reductions in emissions of carbon monoxide and the maximum reductions in such emissions achievable from model year 2001 and later model year light-duty vehicles and light-duty trucks when operated at 20 degrees Fahrenheit.

(B)(i) If as of June 1, 1997, 6 or more non-attainment areas have a carbon monoxide design value of 9.5 ppm or greater, the regulations under subsection (a)(1) of this section applicable to emissions of carbon monoxide from model year 2002 and later model year light-duty vehicles and light-duty trucks shall contain standards which provide that emissions of carbon monoxide from such vehicles and trucks when operated at 20 degrees Fahrenheit may not exceed 3.4 grams per mile (gpm) in the case of light-duty vehicles and 4.4 grams per mile (gpm) in the case of light-duty trucks up to 6,000 GVWR and a level comparable in stringency in the case of light-duty trucks 6,000 GVWR and above.

(ii) In determining for purposes of this subparagraph whether 6 or more nonattainment areas have a carbon monoxide design value of 9.5 ppm or greater, the Administrator shall exclude the areas of Steubenville, Ohio, and Oshkosh, Wisconsin.

##### (3) Useful-life for phase I and phase II standards

In the case of the standards referred to in paragraphs (1) and (2), for purposes of certification under section 7525 of this title and in-use compliance under section 7541 of this title, the applicable useful life period shall be 5 years or 50,000 miles, whichever first occurs, except that the Administrator may extend such useful life period (for purposes of section 7525 of this title, or section 7541 of this title, or both) if he determines that it is feasible for vehicles and engines subject to such standards to meet such standards for a longer useful life. If the Administrator extends such useful life period, the Administrator may make an appropriate adjustment of applicable standards for such extended useful life. No such extended useful life shall extend beyond the useful life period provided in regulations under subsection (d).

##### (4) Heavy-duty vehicles and engines

The Administrator may also promulgate regulations under subsection (a)(1) applicable to emissions of carbon monoxide from heavy-duty vehicles and engines when operated at cold temperatures.

##### (k) Control of evaporative emissions

The Administrator shall promulgate (and from time to time revise) regulations applicable to

evaporative emissions of hydrocarbons from all gasoline-fueled motor vehicles—

- (1) during operation; and
- (2) over 2 or more days of nonuse;

under ozone-prone summertime conditions (as determined by regulations of the Administrator). The regulations shall take effect as expeditiously as possible and shall require the greatest degree of emission reduction achievable by means reasonably expected to be available for production during any model year to which the regulations apply, giving appropriate consideration to fuel volatility, and to cost, energy, and safety factors associated with the application of the appropriate technology. The Administrator shall commence a rulemaking under this subsection within 12 months after November 15, 1990. If final regulations are not promulgated under this subsection within 18 months after November 15, 1990, the Administrator shall submit a statement to the Congress containing an explanation of the reasons for the delay and a date certain for promulgation of such final regulations in accordance with this chapter. Such date certain shall not be later than 15 months after the expiration of such 18 month deadline.

#### **(l) Mobile source-related air toxics**

##### **(1) Study**

Not later than 18 months after November 15, 1990, the Administrator shall complete a study of the need for, and feasibility of, controlling emissions of toxic air pollutants which are unregulated under this chapter and associated with motor vehicles and motor vehicle fuels, and the need for, and feasibility of, controlling such emissions and the means and measures for such controls. The study shall focus on those categories of emissions that pose the greatest risk to human health or about which significant uncertainties remain, including emissions of benzene, formaldehyde, and 1,3 butadiene. The proposed report shall be available for public review and comment and shall include a summary of all comments.

##### **(2) Standards**

Within 54 months after November 15, 1990, the Administrator shall, based on the study under paragraph (1), promulgate (and from time to time revise) regulations under subsection (a)(1) or section 7545(c)(1) of this title containing reasonable requirements to control hazardous air pollutants from motor vehicles and motor vehicle fuels. The regulations shall contain standards for such fuels or vehicles, or both, which the Administrator determines reflect the greatest degree of emission reduction achievable through the application of technology which will be available, taking into consideration the standards established under subsection (a), the availability and costs of the technology, and noise, energy, and safety factors, and lead time. Such regulations shall not be inconsistent with standards under subsection (a). The regulations shall, at a minimum, apply to emissions of benzene and formaldehyde.

#### **(m) Emissions control diagnostics**

##### **(1) Regulations**

Within 18 months after November 15, 1990, the Administrator shall promulgate regulations under subsection (a) requiring manufacturers to install on all new light duty vehicles and light duty trucks diagnostics systems capable of—

(A) accurately identifying for the vehicle's useful life as established under this section, emission-related systems deterioration or malfunction, including, at a minimum, the catalytic converter and oxygen sensor, which could cause or result in failure of the vehicles to comply with emission standards established under this section,

(B) alerting the vehicle's owner or operator to the likely need for emission-related components or systems maintenance or repair,

(C) storing and retrieving fault codes specified by the Administrator, and

(D) providing access to stored information in a manner specified by the Administrator.

The Administrator may, in the Administrator's discretion, promulgate regulations requiring manufacturers to install such onboard diagnostic systems on heavy-duty vehicles and engines.

##### **(2) Effective date**

The regulations required under paragraph (1) of this subsection shall take effect in model year 1994, except that the Administrator may waive the application of such regulations for model year 1994 or 1995 (or both) with respect to any class or category of motor vehicles if the Administrator determines that it would be infeasible to apply the regulations to that class or category in such model year or years, consistent with corresponding regulations or policies adopted by the California Air Resources Board for such systems.

##### **(3) State inspection**

The Administrator shall by regulation require States that have implementation plans containing motor vehicle inspection and maintenance programs to amend their plans within 2 years after promulgation of such regulations to provide for inspection of onboard diagnostics systems (as prescribed by regulations under paragraph (1) of this subsection) and for the maintenance or repair of malfunctions or system deterioration identified by or affecting such diagnostics systems. Such regulations shall not be inconsistent with the provisions for warranties promulgated under section 7541(a) and (b) of this title.

##### **(4) Specific requirements**

In promulgating regulations under this subsection, the Administrator shall require—

(A) that any connectors through which the emission control diagnostics system is accessed for inspection, diagnosis, service, or repair shall be standard and uniform on all motor vehicles and motor vehicle engines;

(B) that access to the emission control diagnostics system through such connectors shall be unrestricted and shall not require



any access code or any device which is only available from a vehicle manufacturer; and

(C) that the output of the data from the emission control diagnostics system through such connectors shall be usable without the need for any unique decoding information or device.

#### (5) Information availability

The Administrator, by regulation, shall require (subject to the provisions of section 7542(c) of this title regarding the protection of methods or processes entitled to protection as trade secrets) manufacturers to provide promptly to any person engaged in the repairing or servicing of motor vehicles or motor vehicle engines, and the Administrator for use by any such persons, with any and all information needed to make use of the emission control diagnostics system prescribed under this subsection and such other information including instructions for making emission related diagnosis and repairs. No such information may be withheld under section 7542(c) of this title if that information is provided (directly or indirectly) by the manufacturer to franchised dealers or other persons engaged in the repair, diagnosing, or servicing of motor vehicles or motor vehicle engines. Such information shall also be available to the Administrator, subject to section 7542(c) of this title, in carrying out the Administrator's responsibilities under this section.

#### (f) <sup>5</sup> Model years after 1990

For model years prior to model year 1994, the regulations under subsection (a) applicable to buses other than those subject to standards under section 7554 of this title shall contain a standard which provides that emissions of particulate matter (PM) from such buses may not exceed the standards set forth in the following table:

PM STANDARD FOR BUSES

Model year	Standard*
1991 .....	0.25
1992 .....	0.25
1993 and thereafter .....	0.10

\*Standards are expressed in grams per brake horsepower hour (g/bhp/hr).

(July 14, 1955, ch. 360, title II, § 202, as added Pub. L. 89-272, title I, § 101(8), Oct. 20, 1965, 79 Stat. 992; amended Pub. L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 499; Pub. L. 91-604, § 6(a), Dec. 31, 1970, 84 Stat. 1690; Pub. L. 93-319, § 5, June 22, 1974, 88 Stat. 258; Pub. L. 95-95, title II, §§ 201, 202(b), 213(b), 214(a), 215-217, 224(a), (b), (g), title IV, § 401(d), Aug. 7, 1977, 91 Stat. 751-753, 758-761, 765, 767, 769, 791; Pub. L. 95-190, § 14(a)(60)-(65), (b)(5), Nov. 16, 1977, 91 Stat. 1403, 1405; Pub. L. 101-549, title II, §§ 201-207, 227(b), 230(1)-(5), Nov. 15, 1990, 104 Stat. 2472-2481, 2507, 2529.)

#### Editorial Notes

##### REFERENCES IN TEXT

The enactment of the Clean Air Act Amendments of 1990, referred to in subsec. (a)(3)(B), probably means the

enactment of Pub. L. 101-549, Nov. 15, 1990, 104 Stat. 2399, which was approved Nov. 15, 1990. For complete classification of this Act to the Code, see Short Title note set out under section 7401 of this title and Tables.

Section 7525(f)(1) of this title, referred to in subsec. (a)(3)(E), was redesignated section 7525(f) of this title by Pub. L. 101-549, title II, § 230(8), Nov. 15, 1990, 104 Stat. 2529.

Paragraph (5) of subsec. (b), referred to in subsec. (b)(1)(A), related to waivers for model years 1981 and 1982, and was repealed by Pub. L. 101-549, title II, § 230(3), Nov. 15, 1990, 104 Stat. 2529. See 1990 Amendment note below.

The Energy Policy and Conservation Act, referred to in subsec. (b)(3)(C), is Pub. L. 94-163, Dec. 22, 1975, 89 Stat. 871, which is classified principally to chapter 77 (§ 6201 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 6201 of this title and Tables.

#### CODIFICATION

Section was formerly classified to section 1857f-1 of this title.

#### AMENDMENTS

1990—Subsec. (a)(3)(A). Pub. L. 101-549, § 201(1), added subpar. (A) and struck out former subpar. (A) which related to promulgation of regulations applicable to reduction of emissions from heavy-duty vehicles or engines manufactured during and after model year 1979 in the case of carbon monoxide, hydrocarbons, and oxides of nitrogen, and from vehicles manufactured during and after model year 1981 in the case of particulate matter.

Subsec. (a)(3)(B). Pub. L. 101-549, § 201(1), added subpar. (B) and struck out former subpar. (B) which read as follows: "During the period of June 1 through December 31, 1978, in the case of hydrocarbons and carbon monoxide, or during the period of June 1 through December 31, 1980, in the case of oxides of nitrogen, and during each period of June 1 through December 31 of each third year thereafter, the Administrator may, after notice and opportunity for a public hearing promulgate regulations revising any standard prescribed as provided in subparagraph (A)(ii) for any class or category of heavy-duty vehicles or engines. Such standard shall apply only for the period of three model years beginning four model years after the model year in which such revised standard is promulgated. In revising any standard under this subparagraph for any such three model year period, the Administrator shall determine the maximum degree of emission reduction which can be achieved by means reasonably expected to be available for production of such period and shall prescribe a revised emission standard in accordance with such determination. Such revised standard shall require a reduction of emissions from any standard which applies in the previous model year."

Subsec. (a)(3)(C). Pub. L. 101-549, § 201(1), added subpar. (C) and struck out former subpar. (C) which read as follows: "Action revising any standard for any period may be taken by the Administrator under subparagraph (B) only if he finds—

"(i) that compliance with the emission standards otherwise applicable for such model year cannot be achieved by technology, processes, operating methods, or other alternatives reasonably expected to be available for production for such model year without increasing cost or decreasing fuel economy to an excessive and unreasonable degree; and

"(ii) the National Academy of Sciences has not, pursuant to its study and investigation under subsection (c), issued a report substantially contrary to the findings of the Administrator under clause (i)."

Subsec. (a)(3)(D). Pub. L. 101-549, § 201(1), added subpar. (D) and struck out former subpar. (D) which read as follows: "A report shall be made to the Congress with respect to any standard revised under subparagraph (B) which shall contain—

"(i) a summary of the health effects found, or believed to be associated with, the pollutant covered by such standard,

<sup>5</sup> So in original. Probably should be "(n)".



“(ii) an analysis of the cost-effectiveness of other strategies for attaining and maintaining national ambient air quality standards and carrying out regulations under part C of subchapter I (relating to significant deterioration) in relation to the cost-effectiveness for such purposes of standards which, but for such revision, would apply.

“(iii) a summary of the research and development efforts and progress being made by each manufacturer for purposes of meeting the standards promulgated as provided in subparagraph (A)(ii) or, if applicable, subparagraph (E), and

“(iv) specific findings as to the relative costs of compliance, and relative fuel economy, which may be expected to result from the application for any model year of such revised standard and the application for such model year of the standard, which, but for such revision, would apply.”

Subsec. (a)(3)(E), (F). Pub. L. 101-549, §201, redesignated subpar. (F) as (E), inserted heading, and struck out former subpar. (E) which read as follows:

“(i) The Administrator shall conduct a continuing pollutant-specific study concerning the effects of each air pollutant emitted from heavy-duty vehicles or engines and from other sources of mobile source related pollutants on the public health and welfare. The results of such study shall be published in the Federal Register and reported to the Congress not later than June 1, 1978, in the case of hydrocarbons and carbon monoxide, and June 1, 1980, in the case of oxides of nitrogen, and before June 1 of each third year thereafter.

“(ii) On the basis of such study and such other information as is available to him (including the studies under section 7548 of this title), the Administrator may, after notice and opportunity for a public hearing, promulgate regulations under paragraph (1) of this subsection changing any standard prescribed in subparagraph (A)(ii) (or revised under subparagraph (B) or previously changed under this subparagraph). No such changed standard shall apply for any model year before the model year four years after the model year during which regulations containing such changed standard are promulgated.”

Subsec. (a)(4)(A), (B). Pub. L. 101-549, §227(b), substituted “requirements prescribed under this subchapter” for “standards prescribed under this subsection”.

Subsec. (a)(6). Pub. L. 101-549, §202, amended par. (6) generally. Prior to amendment, par. (6) read as follows: “The Administrator shall determine the feasibility and desirability of requiring new motor vehicles to utilize onboard hydrocarbon control technology which would avoid the necessity of gasoline vapor recovery of uncontrolled emissions emanating from the fueling of motor vehicles. The Administrator shall compare the costs and effectiveness of such technology to that of implementing and maintaining vapor recovery systems (taking into consideration such factors as fuel economy, economic costs of such technology, administrative burdens, and equitable distribution of costs). If the Administrator finds that it is feasible and desirable to employ such technology, he shall, after consultation with the Secretary of Transportation with respect to motor vehicle safety, prescribe, by regulation, standards requiring the use of onboard hydrocarbon technology which shall not become effective until the introduction to the model year for which it would be feasible to implement such standards, taking into consideration compliance costs and the restraints of an adequate lead time for design and production.”

Subsec. (b)(1)(C). Pub. L. 101-549, §203(c), amended subpar. (C) generally. Prior to amendment, subpar. (C) read as follows: “Effective with respect to vehicles and engines manufactured after model year 1978 (or in the case of heavy-duty vehicles or engines, such later model year as the Administrator determines is the earliest feasible model year), the test procedure promulgated under paragraph (2) for measurement of evaporative emissions of hydrocarbons shall require that such emissions be measured from the vehicle or engine

as a whole. Regulations to carry out this subparagraph shall be promulgated not later than two hundred and seventy days after August 7, 1977.”

Subsec. (b)(2). Pub. L. 101-549, §203(d), amended par. (2) generally. Prior to amendment, par. (2) read as follows: “Emission standards under paragraph (1), and measurement techniques on which such standards are based (if not promulgated prior to December 31, 1970), shall be prescribed by regulation within 180 days after such date.”

Subsec. (b)(3). Pub. L. 101-549, §230(4), redesignated par. (6) relating to waiver of standards for oxides of nitrogen as par. (3), struck out subpar. (A) designation before “Upon the petition”, redesignated former cls. (i) to (iii) as subpars. (A) to (C), respectively, and struck out former subpar. (B) which authorized the Administrator to waive the standard under subsec. (b)(1)(B) of this section for emissions of oxides of nitrogen from light-duty vehicles and engines beginning in model year 1981 after providing notice and opportunity for a public hearing, and set forth conditions under which a waiver could be granted.

Subsec. (b)(3)(B). Pub. L. 101-549, §230(1), in the par. (3) defining terms for purposes of this part struck out subpar. (B) which defined “light duty vehicles and engines”.

Subsec. (b)(4). Pub. L. 101-549, §230(2), struck out par. (4) which read as follows: “On July 1 of 1971, and of each year thereafter, the Administrator shall report to the Congress with respect to the development of systems necessary to implement the emission standards established pursuant to this section. Such reports shall include information regarding the continuing effects of such air pollutants subject to standards under this section on the public health and welfare, the extent and progress of efforts being made to develop the necessary systems, the costs associated with development and application of such systems, and following such hearings as he may deem advisable, any recommendations for additional congressional action necessary to achieve the purposes of this chapter. In gathering information for the purposes of this paragraph and in connection with any hearing, the provisions of section 7607(a) of this title (relating to subpenas) shall apply.”

Subsec. (b)(5). Pub. L. 101-549, §230(3), struck out par. (5) which related to waivers for model years 1981 and 1982 of the effective date of the emissions standard required under par. (1)(A) for carbon monoxide applicable to light-duty vehicles and engines manufactured in those model years.

Subsec. (b)(6). Pub. L. 101-549, §230(4), redesignated par. (6) as (3).

Subsec. (b)(7). Pub. L. 101-549, §230(5), struck out par. (7) which read as follows: “The Congress hereby declares and establishes as a research objective, the development of propulsion systems and emission control technology to achieve standards which represent a reduction of at least 90 per centum from the average emissions of oxides of nitrogen actually measured from light duty motor vehicles manufactured in model year 1971 not subject to any Federal or State emission standard for oxides of nitrogen. The Administrator shall, by regulations promulgated within one hundred and eighty days after August 7, 1977, require each manufacturer whose sales represent at least 0.5 per centum of light duty motor vehicle sales in the United States, to build and, on a regular basis, demonstrate the operation of light duty motor vehicles that meet this research objective, in addition to any other applicable standards or requirements for other pollutants under this chapter. Such demonstration vehicles shall be submitted to the Administrator no later than model year 1979 and in each model year thereafter. Such demonstration shall, in accordance with applicable regulations, to the greatest extent possible, (A) be designed to encourage the development of new powerplant and emission control technologies that are fuel efficient, (B) assure that the demonstration vehicles are or could reasonably be expected to be within the productive capability of the manufacturers, and (C) assure the utili-

zation of optimum engine, fuel, and emission control systems.”

Subsec. (d). Pub. L. 101-549, §203(b)(1), substituted “provide that except where a different useful life period is specified in this subchapter” for “provide that”.

Subsec. (d)(1). Pub. L. 101-549, §203(b)(2), (3), inserted “and light-duty trucks up to 3,750 lbs. LVW and up to 6,000 lbs. GVWR” after “engines” and substituted for semicolon at end “, except that in the case of any requirement of this section which first becomes applicable after November 15, 1990, where the useful life period is not otherwise specified for such vehicles and engines, the period shall be 10 years or 100,000 miles (or the equivalent), whichever first occurs, with testing for purposes of in-use compliance under section 7541 of this title up to (but not beyond) 7 years or 75,000 miles (or the equivalent), whichever first occurs;”.

Subsec. (f). Pub. L. 101-549, §207(b), added (after subsec. (m) at end) subsec. (f) relating to regulations applicable to buses for model years after 1990.

Subsecs. (g) to (i). Pub. L. 101-549, §203(a), added subsecs. (g) to (i).

Subsecs. (j) to (m). Pub. L. 101-549, §§204-207(a), added subsecs. (j) to (m).

1977—Subsec. (a)(1). Pub. L. 95-190, §14(a)(60), restructured subsec. (a) by providing for designation of par. (1) to precede “The Administrator” in place of “Except as”.

Pub. L. 95-95, §401(d)(1), substituted “Except as otherwise provided in subsection (b) the Administrator” for “The Administrator”, “cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare” for “causes or contributes to, or is likely to cause or contribute to, air pollution which endangers the public health or welfare”, and “useful life (as determined under subsection (d), relating to useful life of vehicles for purposes of certification), whether such vehicles and engines are designed as complete systems or incorporate devices” for “useful life (as determined under subsection (d)) whether such vehicles and engines are designed as complete systems or incorporated devices”.

Subsec. (a)(2). Pub. L. 95-95, §214(a), substituted “prescribed under paragraph (1) of this subsection” for “prescribed under this subsection”.

Subsec. (a)(3). Pub. L. 95-95, §224(a), added par. (3).

Subsec. (a)(3)(B). Pub. L. 95-190, §14(a)(61), (62), substituted provisions setting forth applicable periods of from June 1 through Dec. 31, 1978, June 1 through Dec. 31, 1980, and during each period of June 1 through Dec. 31 of each third year thereafter, for provisions setting forth applicable periods of from June 1 through Dec. 31, 1979, and during each period of June 1 through Dec. 31 of each third year after 1979, and substituted “from any” for “of from any”.

Subsec. (a)(3)(E). Pub. L. 95-190, §14(a)(63), substituted “1978, in the case of hydrocarbons and carbon monoxide, and June 1, 1980, in the case of oxides of nitrogen” for “1979”.

Subsec. (a)(4). Pub. L. 95-95, §214(a), added par. (4).

Subsec. (a)(5). Pub. L. 95-95, §215, added par. (5).

Subsec. (a)(6). Pub. L. 95-95, §216, added par. (6).

Subsec. (b)(1)(A). Pub. L. 95-95, §201(a), substituted provisions setting the standards for emissions from light-duty vehicles and engines manufactured during the model years 1977 through 1980 for provisions which had set the standards for emissions from light-duty vehicles and engines manufactured during the model years 1975 and 1976, substituted “model year 1980” for “model year 1977” in provisions requiring a reduction of at least 90 per centum from the emissions allowable under standards for model year 1970, and inserted provisions that, unless waived as provided in par. (5), the standards for vehicles and engines manufactured during or after the model year 1981 represent a reduction of at least 90 per centum from the emissions allowable under standards for model year 1970.

Subsec. (b)(1)(B). Pub. L. 95-190, §14(a)(64), (65), substituted “calendar year 1976” for “model year 1976” and in cl. (i) substituted “other” for “United States”.

Pub. L. 95-95, §201(b), substituted provisions setting the standards for emissions from light-duty vehicles and engines manufactured during the model years 1977 through 1980 for provisions which had set the standards for emissions from light-duty vehicles and engines manufactured during the model years 1975 through 1977, substituted provisions that the standards for model years 1981 and after allow emissions of no more than 1.0 gram per vehicle mile for provisions that the standards for model year 1978 and after require a reduction of at least 90 per centum from the average of emissions actually measured from light-duty vehicles manufactured during model year 1971 which were not subject to any Federal or State emission standards for oxides of nitrogen, and inserted provisions directing the Administrator to prescribe separate standards for model years 1981 and 1982 for manufacturers whose production, by corporate identity, for model year 1976 was less than three hundred thousand light-duty motor vehicles worldwide if the manufacturer’s capability to meet emission standards depends upon United States technology and if the manufacturer cannot develop one.

Subsec. (b)(1)(C). Pub. L. 95-95, §217, added subpar. (C).

Subsec. (b)(3)(C). Pub. L. 95-95, §224(b), added subpar. (C).

Subsec. (b)(5). Pub. L. 95-95, §201(c), substituted provisions setting up a procedure under which a manufacturer may apply for a waiver for model years 1981 and 1982 of the effective date of the emission standards for carbon monoxide required by par. (1)(A) for provisions which had set up a procedure under which a manufacturer, after Jan. 1, 1975, could apply for a one-year suspension of the effective date of any emission standard required by par. (1)(A) for model year 1977.

Subsec. (b)(6). Pub. L. 95-95, §201(c), added par. (6).

Subsec. (b)(7). Pub. L. 95-95, §202(b), added par. (7).

Subsec. (d)(2). Pub. L. 95-95, §224(g), as amended by Pub. L. 95-190, §14(b)(5), to correct typographical error in directory language, inserted “(other than motorcycles or motorcycle engines)” after “motor vehicle or motor vehicle engine”.

Subsec. (d)(3). Pub. L. 95-95, §224(g), added par. (3).

Subsec. (e). Pub. L. 95-95, §401(d)(2), substituted “which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger” for “which cause or contribute to, or are likely to cause or contribute to, air pollution which endangers”.

Subsec. (f). Pub. L. 95-95, §213(b), added subsec. (f).

1974—Subsec. (b)(1)(A). Pub. L. 93-319, §5(a), substituted “model year 1977” for “model year 1975” in provisions requiring a reduction of at least 90 per centum from the emissions allowable under standards for model year 1970 and inserted provisions covering regulations for model years 1975 and 1976.

Subsec. (b)(1)(B). Pub. L. 93-319, §5(b), substituted “model year 1978” for “model year 1976” in provisions requiring a reduction of at least 90 per centum from the average of emissions actually measured from vehicles manufactured during model year 1971 and inserted provisions covering regulations for model years 1975, 1976, and 1977.

Subsec. (b)(5). Pub. L. 93-319, §5(c), (d), substituted in subpar. (A), “At any time after January 1, 1975” for “At any time after January 1, 1972”, “with respect to such manufacturer for light-duty vehicles and engines manufactured in model year 1977” for “with respect to such manufacturer”, “sixty days” for “60 days”, “paragraph (1)(A) of this subsection” for “paragraph (1)(A)”, and “vehicles and engines manufactured during model year 1977” for “vehicles and engines manufactured during model year 1975”, redesignated subpars. (C) to (E) as (B) to (D), respectively, and struck out former subpar. (B) which had allowed manufacturers, at any time after Jan. 1, 1973, to file with the Administrator an application requesting a 1-year suspension of the effective date of any emission standard required by subsec. (b)(1)(B) with respect to such manufacturer.

1970—Subsec. (a). Pub. L. 91-604 redesignated existing provisions as par. (1), substituted Administrator for

Secretary as the issuing authority for standards, inserted references to the useful life of engines, and substituted the emission of any air pollutant for the emission of any kind of substance as the subject to be regulated, and added par. (2).

Subsec. (b). Pub. L. 91-604 added subsec. (b). Former subsec. (b) redesignated as par. (2) of subsec. (a).

Subsecs. (c) to (e). Pub. L. 91-604 added subsecs. (c) to (e).

1967—Pub. L. 90-148 reenacted section without change.

#### Statutory Notes and Related Subsidiaries

##### EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

##### MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

##### STUDY ON OXIDES OF NITROGEN FROM LIGHT-DUTY VEHICLES

Pub. L. 95-95, title II, § 202(a), Aug. 7, 1977, 91 Stat. 753, provided that the Administrator of the Environmental Protection Agency conduct a study of the public health implications of attaining an emission standard on oxides of nitrogen from light-duty vehicles of 0.4 gram per vehicle mile, the cost and technological capability of attaining such standard, and the need for such a standard to protect public health or welfare and that the Administrator submit a report of such study to the Congress, together with recommendations not later than July 1, 1980.

##### STUDY OF CARBON MONOXIDE INTRUSION INTO SUSTAINED-USE VEHICLES

Pub. L. 95-95, title II, § 226, Aug. 7, 1977, 91 Stat. 769, provided that the Administrator, in conjunction with the Secretary of Transportation, study the problem of carbon monoxide intrusion into the passenger area of sustained-use motor vehicles and that within one year the Administrator report to the Congress respecting the results of such study.

##### CONTINUING COMPREHENSIVE STUDIES AND INVESTIGATIONS BY NATIONAL ACADEMY OF SCIENCES

Pub. L. 95-95, title IV, § 403(f), Aug. 7, 1977, 91 Stat. 793, provided that: "The Administrator of the Environmental Protection Agency shall undertake to enter into appropriate arrangements with the National Academy of Sciences to conduct continuing comprehensive studies and investigations of the effects on public health and welfare of emissions subject to section 202(a) of the Clean Air Act [subsec. (a) of this section] (including sulfur compounds) and the technological feasibility of meeting emission standards required to be prescribed by the Administrator by section 202(b) of such Act [subsec. (b) of this section]. The Administrator shall report to the Congress within six months of the date of enactment of this section [Aug. 7, 1977] and each year thereafter regarding the status of the contractual arrangements and conditions necessary to implement this paragraph."

[For termination, effective May 15, 2000, of provisions relating to annual report to Congress in section 403(f) of Pub. L. 95-95, set out above, see section 3003 of Pub. L. 104-66, as amended, set out as a note under section 1113 of Title 31, Money and Finance, and the 2nd item on page 165 of House Document No. 103-7.]

##### STUDY ON EMISSION OF SULFUR-BEARING COMPOUNDS FROM MOTOR VEHICLES AND MOTOR VEHICLE AND AIRCRAFT ENGINES

Pub. L. 95-95, title IV, § 403(g), Aug. 7, 1977, 91 Stat. 793, provided that the Administrator of the Environmental Protection Agency conduct a study and report to the Congress by the date one year after Aug. 7, 1977, on the emission of sulfur-bearing compounds from motor vehicles and motor vehicle engines and aircraft engines.

#### Executive Documents

##### EX. ORD. NO. 13432. COOPERATION AMONG AGENCIES IN PROTECTING THE ENVIRONMENT WITH RESPECT TO GREENHOUSE GAS EMISSIONS FROM MOTOR VEHICLES, NONROAD VEHICLES, AND NONROAD ENGINES

Ex. Ord. No. 13432, May 14, 2007, 72 F.R. 27717, as amended by Ex. Ord. No. 13693, § 16(e), Mar. 19, 2015, 80 F.R. 15881, provided:

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

**SECTION 1. Policy.** It is the policy of the United States to ensure the coordinated and effective exercise of the authorities of the President and the heads of the Department of Transportation, the Department of Energy, and the Environmental Protection Agency to protect the environment with respect to greenhouse gas emissions from motor vehicles, nonroad vehicles, and nonroad engines, in a manner consistent with sound science, analysis of benefits and costs, public safety, and economic growth.

**SEC. 2. Definitions.** As used in this order:

(a) "agencies" refers to the Department of Transportation, the Department of Energy, and the Environmental Protection Agency, and all units thereof, and "agency" refers to any of them;

(b) "alternative fuels" has the meaning specified for that term in section 301(2) of the Energy Policy Act of 1992 (42 U.S.C. 13211(2));

(c) "authorities" include the Clean Air Act (42 U.S.C. 7401-7671q), the Energy Policy Act of 1992 (Public Law 102-486), the Energy Policy Act of 2005 (Public Law 109-58), the Energy Policy and Conservation Act (Public Law 94-163), and any other current or future laws or regulations that may authorize or require any of the agencies to take regulatory action that directly or indirectly affects emissions of greenhouse gases from motor vehicles;

(d) "greenhouse gases" means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride [sic], and sulfur hexafluoride;

(e) "motor vehicle" has the meaning specified for that term in section 216(2) of the Clean Air Act (42 U.S.C. 7550(2));

(f) "nonroad engine" has the meaning specified for that term in section 216(10) of the Clean Air Act (42 U.S.C. 7550(10));

(g) "nonroad vehicle" has the meaning specified for that term in section 216(11) of the Clean Air Act (42 U.S.C. 7550(11));

(h) "regulation" has the meaning specified for that term in section 3(d) of Executive Order 12866 of September 30, 1993, as amended (Executive Order 12866); and

(i) "regulatory action" has the meaning specified for that term in section 3(e) of Executive Order 12866.

**SEC. 3. Coordination Among the Agencies.** In carrying out the policy set forth in section 1 of this order, the head of an agency undertaking a regulatory action that can reasonably be expected to directly regulate emis-



sions, or to substantially and predictably affect emissions, of greenhouse gases from motor vehicles, nonroad vehicles, nonroad engines, or the use of motor vehicle fuels, including alternative fuels, shall:

(a) undertake such a regulatory action, to the maximum extent permitted by law and determined by the head of the agency to be practicable, jointly with the other agencies;

(b) in undertaking such a regulatory action, consider, in accordance with applicable law, information and recommendations provided by the other agencies;

(c) in undertaking such a regulatory action, exercise authority vested by law in the head of such agency effectively, in a manner consistent with the effective exercise by the heads of the other agencies of the authority vested in them by law; and

(d) obtain, to the extent permitted by law, concurrence or other views from the heads of the other agencies during the development and preparation of the regulatory action and prior to any key decision points during that development and preparation process, and in no event later than 30 days prior to publication of such action.

SEC. 4. *Duties of the Heads of Agencies.* (a) To implement this order, the head of each agency shall:

(i) designate appropriate personnel within the agency to (i) direct the agency's implementation of this order, (ii) ensure that the agency keeps the other agencies and the Office of Management and Budget informed of the agency regulatory actions to which section 3 refers, and (iii) coordinate such actions with the agencies;

(2) in coordination as appropriate with the Committee on Climate Change Science and Technology, continue to conduct and share research designed to advance technologies to further the policy set forth in section 1 of this order;

(3) facilitate the sharing of personnel and the sharing of information among the agencies to further the policy set forth in section 1 of this order;

(4) coordinate with the other agencies to avoid duplication of requests to the public for information from the public in the course of undertaking such regulatory action, consistent with the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*); and

(5) consult with the Secretary of Agriculture whenever a regulatory action will have a significant effect on agriculture related to the production or use of ethanol, biodiesel, or other renewable fuels, including actions undertaken in whole or in part based on authority or requirements in title XV of the Energy Policy Act of 2005, or the amendments made by such title, or when otherwise appropriate or required by law.

(b) To implement this order, the heads of the agencies acting jointly may allocate as appropriate among the agencies administrative responsibilities relating to regulatory actions to which section 3 refers, such as publication of notices in the Federal Register and receipt of comments in response to notices.

SEC. 5. *Duties of the Director of the Office of Management and Budget and the Chairman of the Council on Environmental Quality.* (a) The Director of the Office of Management and Budget, with such assistance from the Chairman of the Council on Environmental Quality as the Director may require, shall monitor the implementation of this order by the heads of the agencies and shall report thereon to the President from time to time, and not less often than semiannually, with any recommendations of the Director for strengthening the implementation of this order.

(b) To implement this order and further the policy set forth in section 1, the Director of the Office of Management and Budget may require the heads of the agencies to submit reports to, and coordinate with, such Office on matters related to this order.

SEC. 6. *General Provisions.* (a) This order shall be implemented in accordance with applicable law and subject to the availability of appropriations.

(b) This order shall not be construed to impair or otherwise affect the functions of the Director of the Office of Management and Budget relating to budget, administrative, and legislative proposals.

(c) This order is not intended to, and does not, create any right, benefit or privilege, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, instrumentalities, or entities, its officers or employees, or any other person.

EX. ORD. NO. 14037. STRENGTHENING AMERICAN LEADERSHIP IN CLEAN CARS AND TRUCKS

Ex. Ord. No. 14037, Aug. 5, 2021, 86 F.R. 43583, provided: By the authority vested in me as President by the Constitution and the laws of the United States of America, and in order to promote the interests of American workers, businesses, consumers, and communities, it is hereby ordered as follows:

SECTION 1. *Policy.* America must lead the world on clean and efficient cars and trucks. That means bolstering our domestic market by setting a goal that 50 percent of all new passenger cars and light trucks sold in 2030 be zero-emission vehicles, including battery electric, plug-in hybrid electric, or fuel cell electric vehicles. My Administration will prioritize setting clear standards, expanding key infrastructure, spurring critical innovation, and investing in the American auto-worker. This will allow us to boost jobs—with good pay and benefits—across the United States along the full supply chain for the automotive sector, from parts and equipment manufacturing to final assembly.

It is the policy of my Administration to advance these objectives in order to improve our economy and public health, boost energy security, secure consumer savings, advance environmental justice, and address the climate crisis.

SEC. 2. *Light-, Medium-, and Certain Heavy-Duty Vehicles Multi-Pollutant and Fuel Economy Standards for 2027 and Later.*

(a) The Administrator of the Environmental Protection Agency (EPA) shall, as appropriate and consistent with applicable law, consider beginning work on a rulemaking under the Clean Air Act (42 U.S.C. 7401–7671q) to establish new multi-pollutant emissions standards, including for greenhouse gas emissions, for light- and medium-duty vehicles beginning with model year 2027 and extending through and including at least model year 2030.

(b) The Secretary of Transportation shall, as appropriate and consistent with applicable law, consider beginning work on a rulemaking under the Energy Independence and Security Act of 2007 (Public Law 110–140, 121 Stat. 1492) (EISA) [see Tables for classification] to establish new fuel economy standards for passenger cars and light-duty trucks beginning with model year 2027 and extending through and including at least model year 2030.

(c) The Secretary of Transportation shall, as appropriate and consistent with applicable law, consider beginning work on a rulemaking under EISA to establish new fuel efficiency standards for heavy-duty pickup trucks and vans beginning with model year 2028 and extending through and including at least model year 2030.

SEC. 3. *Heavy-Duty Engines and Vehicles Multi-Pollutant Standards for 2027 and Later.* (a) The Administrator of the EPA shall, as appropriate and consistent with applicable law, consider beginning work on a rulemaking under the Clean Air Act to establish new oxides of nitrogen standards for heavy-duty engines and vehicles beginning with model year 2027 and extending through and including at least model year 2030.

(b) The Administrator of the EPA shall, as appropriate and consistent with applicable law, and in consideration of the role that zero-emission heavy-duty vehicles might have in reducing emissions from certain market segments, consider updating the existing greenhouse gas emissions standards for heavy-duty engines and vehicles beginning with model year 2027 and extending through and including at least model year 2029.

SEC. 4. *Medium- and Heavy-Duty Engines and Vehicles Greenhouse Gas and Fuel Efficiency Standards as Soon as 2030 and Later.* (a) The Administrator of the EPA shall, as appropriate and consistent with applicable law, con-

sider beginning work on a rulemaking under the Clean Air Act to establish new greenhouse gas emissions standards for heavy-duty engines and vehicles to begin as soon as model year 2030.

(b) The Secretary of Transportation shall, as appropriate and consistent with applicable law, consider beginning work on a rulemaking under EISA to establish new fuel efficiency standards for medium- and heavy-duty engines and vehicles to begin as soon as model year 2030.

SEC. 5. *Rulemaking Targets.* (a) With respect to the rulemaking described in section 3(a) of this order, the Administrator of the EPA shall, as appropriate and consistent with applicable law, consider issuing a notice of proposed rulemaking by January 2022 and any final rulemaking by December 2022.

(b) With respect to the other rulemakings described in section 2 and section 4 of this order, the Secretary of Transportation and the Administrator of the EPA shall, as appropriate and consistent with applicable law, consider issuing any final rulemakings no later than July 2024.

SEC. 6. *Coordination and Engagement.* (a) The Secretary of Transportation and the Administrator of the EPA shall coordinate, as appropriate and consistent with applicable law, during the consideration of any rulemakings pursuant to this order.

(b) The Secretary of Transportation and the Administrator of the EPA shall consult with the Secretaries of Commerce, Labor, and Energy on ways to achieve the goals laid out in section 1 of this order, to accelerate innovation and manufacturing in the automotive sector, to strengthen the domestic supply chain for that sector, and to grow jobs that provide good pay and benefits.

(c) Given the significant expertise and historical leadership demonstrated by the State of California with respect to establishing emissions standards for light-, medium-, and heavy-duty vehicles, the Administrator of the EPA shall coordinate the agency's activities pursuant to sections 2 through 4 of this order, as appropriate and consistent with applicable law, with the State of California as well as other States that are leading the way in reducing vehicle emissions, including by adopting California's standards.

(d) In carrying out any of the actions described in this order, the Secretary of Transportation and the Administrator of the EPA shall seek input from a diverse range of stakeholders, including representatives from labor unions, States, industry, environmental justice organizations, and public health experts.

SEC. 7. *General Provisions.* (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

J.R. BIDEN, JR.

## § 7522. Prohibited acts

### (a) Enumerated prohibitions

The following acts and the causing thereof are prohibited—

(1) in the case of a manufacturer of new motor vehicles or new motor vehicle engines for distribution in commerce, the sale, or the offering for sale, or the introduction, or delivery for introduction, into commerce, or (in the case of any person, except as provided by regu-

lation of the Administrator), the importation into the United States, of any new motor vehicle or new motor vehicle engine, manufactured after the effective date of regulations under this part which are applicable to such vehicle or engine unless such vehicle or engine is covered by a certificate of conformity issued (and in effect) under regulations prescribed under this part or part C in the case of clean-fuel vehicles (except as provided in subsection (b));

(2)(A) for any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information required under section 7542 of this title;

(B) for any person to fail or refuse to permit entry, testing or inspection authorized under section 7525(c) of this title or section 7542 of this title;

(C) for any person to fail or refuse to perform tests, or have tests performed as required under section 7542 of this title;

(D) for any manufacturer to fail to make information available as provided by regulation under section 7521(m)(5) of this title;

(3)(A) for any person to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter prior to its sale and delivery to the ultimate purchaser, or for any person knowingly to remove or render inoperative any such device or element of design after such sale and delivery to the ultimate purchaser; or

(B) for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use; or

(4) for any manufacturer of a new motor vehicle or new motor vehicle engine subject to standards prescribed under section 7521 of this title or part C—

(A) to sell or lease any such vehicle or engine unless such manufacturer has complied with (i) the requirements of section 7541(a) and (b) of this title with respect to such vehicle or engine, and unless a label or tag is affixed to such vehicle or engine in accordance with section 7541(c)(3) of this title, or (ii) the corresponding requirements of part C in the case of clean fuel vehicles unless the manufacturer has complied with the corresponding requirements of part C<sup>1</sup>

(B) to fail or refuse to comply with the requirements of section 7541(c) or (e) of this title, or the corresponding requirements of part C in the case of clean fuel vehicles<sup>1</sup>

(C) except as provided in subsection (c)(3) of section 7541 of this title and the corresponding requirements of part C in the

<sup>1</sup> So in original. Probably should be followed by a comma.

sider beginning work on a rulemaking under the Clean Air Act to establish new greenhouse gas emissions standards for heavy-duty engines and vehicles to begin as soon as model year 2030.

(b) The Secretary of Transportation shall, as appropriate and consistent with applicable law, consider beginning work on a rulemaking under EISA to establish new fuel efficiency standards for medium- and heavy-duty engines and vehicles to begin as soon as model year 2030.

SEC. 5. *Rulemaking Targets.* (a) With respect to the rulemaking described in section 3(a) of this order, the Administrator of the EPA shall, as appropriate and consistent with applicable law, consider issuing a notice of proposed rulemaking by January 2022 and any final rulemaking by December 2022.

(b) With respect to the other rulemakings described in section 2 and section 4 of this order, the Secretary of Transportation and the Administrator of the EPA shall, as appropriate and consistent with applicable law, consider issuing any final rulemakings no later than July 2024.

SEC. 6. *Coordination and Engagement.* (a) The Secretary of Transportation and the Administrator of the EPA shall coordinate, as appropriate and consistent with applicable law, during the consideration of any rulemakings pursuant to this order.

(b) The Secretary of Transportation and the Administrator of the EPA shall consult with the Secretaries of Commerce, Labor, and Energy on ways to achieve the goals laid out in section 1 of this order, to accelerate innovation and manufacturing in the automotive sector, to strengthen the domestic supply chain for that sector, and to grow jobs that provide good pay and benefits.

(c) Given the significant expertise and historical leadership demonstrated by the State of California with respect to establishing emissions standards for light-, medium-, and heavy-duty vehicles, the Administrator of the EPA shall coordinate the agency's activities pursuant to sections 2 through 4 of this order, as appropriate and consistent with applicable law, with the State of California as well as other States that are leading the way in reducing vehicle emissions, including by adopting California's standards.

(d) In carrying out any of the actions described in this order, the Secretary of Transportation and the Administrator of the EPA shall seek input from a diverse range of stakeholders, including representatives from labor unions, States, industry, environmental justice organizations, and public health experts.

SEC. 7. *General Provisions.* (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

J.R. BIDEN, JR.

## § 7522. Prohibited acts

### (a) Enumerated prohibitions

The following acts and the causing thereof are prohibited—

(1) in the case of a manufacturer of new motor vehicles or new motor vehicle engines for distribution in commerce, the sale, or the offering for sale, or the introduction, or delivery for introduction, into commerce, or (in the case of any person, except as provided by regu-

lation of the Administrator), the importation into the United States, of any new motor vehicle or new motor vehicle engine, manufactured after the effective date of regulations under this part which are applicable to such vehicle or engine unless such vehicle or engine is covered by a certificate of conformity issued (and in effect) under regulations prescribed under this part or part C in the case of clean-fuel vehicles (except as provided in subsection (b));

(2)(A) for any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information required under section 7542 of this title;

(B) for any person to fail or refuse to permit entry, testing or inspection authorized under section 7525(c) of this title or section 7542 of this title;

(C) for any person to fail or refuse to perform tests, or have tests performed as required under section 7542 of this title;

(D) for any manufacturer to fail to make information available as provided by regulation under section 7521(m)(5) of this title;

(3)(A) for any person to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter prior to its sale and delivery to the ultimate purchaser, or for any person knowingly to remove or render inoperative any such device or element of design after such sale and delivery to the ultimate purchaser; or

(B) for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use; or

(4) for any manufacturer of a new motor vehicle or new motor vehicle engine subject to standards prescribed under section 7521 of this title or part C—

(A) to sell or lease any such vehicle or engine unless such manufacturer has complied with (i) the requirements of section 7541(a) and (b) of this title with respect to such vehicle or engine, and unless a label or tag is affixed to such vehicle or engine in accordance with section 7541(c)(3) of this title, or (ii) the corresponding requirements of part C in the case of clean fuel vehicles unless the manufacturer has complied with the corresponding requirements of part C<sup>1</sup>

(B) to fail or refuse to comply with the requirements of section 7541(c) or (e) of this title, or the corresponding requirements of part C in the case of clean fuel vehicles<sup>1</sup>

(C) except as provided in subsection (c)(3) of section 7541 of this title and the corresponding requirements of part C in the

<sup>1</sup> So in original. Probably should be followed by a comma.



case of clean fuel vehicles, to provide directly or indirectly in any communication to the ultimate purchaser or any subsequent purchaser that the coverage of any warranty under this chapter is conditioned upon use of any part, component, or system manufactured by such manufacturer or any person acting for such manufacturer or under his control, or conditioned upon service performed by any such person, or

(D) to fail or refuse to comply with the terms and conditions of the warranty under section 7541(a) or (b) of this title or the corresponding requirements of part C in the case of clean fuel vehicles with respect to any vehicle; or

(5) for any person to violate section 7553 of this title, 7554 of this title, or part C of this subchapter or any regulations under section 7553 of this title, 7554 of this title, or part C.

No action with respect to any element of design referred to in paragraph (3) (including any adjustment or alteration of such element) shall be treated as a prohibited act under such paragraph (3) if such action is in accordance with section 7549 of this title. Nothing in paragraph (3) shall be construed to require the use of manufacturer parts in maintaining or repairing any motor vehicle or motor vehicle engine. For the purposes of the preceding sentence, the term “manufacturer parts” means, with respect to a motor vehicle engine, parts produced or sold by the manufacturer of the motor vehicle or motor vehicle engine. No action with respect to any device or element of design referred to in paragraph (3) shall be treated as a prohibited act under that paragraph if (i) the action is for the purpose of repair or replacement of the device or element, or is a necessary and temporary procedure to repair or replace any other item and the device or element is replaced upon completion of the procedure, and (ii) such action thereafter results in the proper functioning of the device or element referred to in paragraph (3). No action with respect to any device or element of design referred to in paragraph (3) shall be treated as a prohibited act under that paragraph if the action is for the purpose of a conversion of a motor vehicle for use of a clean alternative fuel (as defined in this subchapter) and if such vehicle complies with the applicable standard under section 7521 of this title when operating on such fuel, and if in the case of a clean alternative fuel vehicle (as defined by rule by the Administrator), the device or element is replaced upon completion of the conversion procedure and such action results in proper functioning of the device or element when the motor vehicle operates on conventional fuel.

**(b) Exemptions; refusal to admit vehicle or engine into United States; vehicles or engines intended for export**

(1) The Administrator may exempt any new motor vehicle or new motor vehicle engine, from subsection (a), upon such terms and conditions as he may find necessary for the purpose of research, investigations, studies, demonstrations, or training, or for reasons of national security.

(2) A new motor vehicle or new motor vehicle engine offered for importation or imported by

any person in violation of subsection (a) shall be refused admission into the United States, but the Secretary of the Treasury and the Administrator may, by joint regulation, provide for deferring final determination as to admission and authorizing the delivery of such a motor vehicle or engine offered for import to the owner or consignee thereof upon such terms and conditions (including the furnishing of a bond) as may appear to them appropriate to insure that any such motor vehicle or engine will be brought into conformity with the standards, requirements, and limitations applicable to it under this part. The Secretary of the Treasury shall, if a motor vehicle or engine is finally refused admission under this paragraph, cause disposition thereof in accordance with the customs laws unless it is exported, under regulations prescribed by such Secretary, within ninety days of the date of notice of such refusal or such additional time as may be permitted pursuant to such regulations, except that disposition in accordance with the customs laws may not be made in such manner as may result, directly or indirectly, in the sale, to the ultimate consumer, of a new motor vehicle or new motor vehicle engine that fails to comply with applicable standards of the Administrator under this part.

(3) A new motor vehicle or new motor vehicle engine intended solely for export, and so labeled or tagged on the outside of the container and on the vehicle or engine itself, shall be subject to the provisions of subsection (a), except that if the country which is to receive such vehicle or engine has emission standards which differ from the standards prescribed under section 7521 of this title, then such vehicle or engine shall comply with the standards of such country which is to receive such vehicle or engine.

(July 14, 1955, ch. 360, title II, § 203, as added Pub. L. 89-272, title I, § 101(8), Oct. 20, 1965, 79 Stat. 993; amended Pub. L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 499; Pub. L. 91-604, §§ 7(a), 11(a)(2)(A), 15(c)(2), Dec. 31, 1970, 84 Stat. 1693, 1705, 1713; Pub. L. 95-95, title II, §§ 206, 211(a), 218(a), (d), 219(a), (b), Aug. 7, 1977, 91 Stat. 755, 757, 761, 762; Pub. L. 95-190, § 14(a)(66)-(68), Nov. 16, 1977, 91 Stat. 1403; Pub. L. 101-549, title II, §§ 228(a), (b), (e), 230(6), Nov. 15, 1990, 104 Stat. 2507, 2511, 2529.)

**Editorial Notes**

**CODIFICATION**

Section was formerly classified to section 1857f-2 of this title.

**AMENDMENTS**

1990—Subsec. (a). Pub. L. 101-549, § 228(b)(2), inserted two sentences at end which set forth conditions under which actions with respect to devices or elements of design, referred to in par. (3), would not be deemed prohibited acts.

Subsec. (a)(1). Pub. L. 101-549, § 228(e)(1), inserted “or part C in the case of clean-fuel vehicles” before “(except”.

Subsec. (a)(2). Pub. L. 101-549, § 228(a), amended par. (2) generally. Prior to amendment, par. (2) read as follows: “for any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information, required under section 7542 of this title or for any person to fail or refuse to permit entry, testing, or inspection authorized under section 7525(c) of this title;”.

Subsec. (a)(3). Pub. L. 101-549, § 228(b)(1), amended par. (3) generally. Prior to amendment, par. (3) read as follows:

“(A) for any person to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter prior to its sale and delivery to the ultimate purchaser, or for any manufacturer or dealer knowingly to remove or render inoperative any such device or element of design after such sale and delivery to the ultimate purchaser; or

“(B) for any person engaged in the business of repairing, servicing, selling, leasing, or trading motor vehicles or motor vehicle engines, or who operates a fleet of motor vehicles, knowingly to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter following its sale and delivery to the ultimate purchaser; or”.

Subsec. (a)(4). Pub. L. 101-549, § 228(e)(2), inserted “or part C” after “section 7521 of this title”.

Subsec. (a)(4)(A). Pub. L. 101-549, § 228(e)(3), inserted cl. (i) designation and added cl. (ii).

Subsec. (a)(4)(B). Pub. L. 101-549, § 228(e)(4), inserted at end “or the corresponding requirements of part C in the case of clean fuel vehicles”.

Subsec. (a)(4)(C). Pub. L. 101-549, § 228(e)(5), inserted “and the corresponding requirements of part C in the case of clean fuel vehicles” after “section 7541 of this title”.

Subsec. (a)(4)(D). Pub. L. 101-549, § 228(e)(6), inserted “or the corresponding requirements of part C in the case of clean fuel vehicles” before “with respect to any vehicle”.

Subsec. (a)(5). Pub. L. 101-549, § 228(e)(7), added par. (5).

Subsec. (c). Pub. L. 101-549, § 230(6), struck out subsec. (c) which related to exemptions to permit modifications of emission control devices or systems.

1977—Subsec. (a). Pub. L. 95-190, § 14(a)(68), in closing text inserted a period after “section 7549 of this title”.

Pub. L. 95-95, §§ 206, 211(a), 218(a), 219(a), (b), inserted “or for any person to fail or refuse to permit entry, testing, or inspection authorized under section 7525(c) of this title” in par. (2), designated existing provisions of par. (3) as subpar. (A) and added subpar. (B), added subpars. (C) and (D) in par. (4), and, following par. (4), inserted provisions that no action with respect to any element of design referred to in par. (3) (including adjustment or alteration of such element) be treated as a prohibited act under par. (3) if the action is in accordance with section 7549 of this title and that nothing in par. (3) be construed to require the use of manufacturer parts in maintaining or repairing motor vehicles or motor vehicle engines.

Subsec. (a)(3)(B). Pub. L. 95-190, § 14(a)(66), substituted “purchaser;” for “purchaser.”.

Subsec. (a)(4)(C). Pub. L. 95-190, § 14(a)(67), inserted “or” after “such person.”.

Subsec. (b)(3). Pub. L. 95-95, § 218(d), substituted “section 7521 of this title” for “subsection (a)” and “country which is to receive such vehicle or engine” for “country of export”.

1970—Subsec. (a)(1). Pub. L. 91-604, § 7(a)(1), struck out reference to the manufacture of new motor vehicles or new motor vehicle engines for sale, inserted provision for issuance by the Administrator of regulations regarding exceptions in the case of importation of new motor vehicles or new motor vehicle engines, and substituted “importation” into the United States of such units for “importation for sale or resale” into the United States of such units.

Subsec. (a)(2). Pub. L. 91-604, § 7(a)(2), substituted “section 208” for “section 207”, both of which, for purposes of codification, are translated as “section 7542 of this title”.

Subsec. (a)(3). Pub. L. 91-604, §§ 7(a)(3), 11(a)(2)(A), substituted “part” for “subchapter” and inserted provisions prohibiting the knowing removal or inoperation by manufacturers or dealers of devices or elements of

design after sale and delivery to the ultimate purchaser.

Subsec. (a)(4). Pub. L. 91-604, § 7(a)(4), added par. (4).

Subsec. (b)(1). Pub. L. 91-604, §§ 7(a)(5), 15(c)(2), struck out reference to the exemption of a class of new motor vehicles or new motor vehicle engines, struck out the protection of the public health and welfare from the enumeration of purposes for which exemptions may be made, and substituted “Administrator” for “Secretary”.

Subsec. (b)(2). Pub. L. 91-604, §§ 7(a)(6), 11(a)(2)(A), 15(c)(2), substituted “Administrator” for “Secretary of Health, Education, and Welfare”, “importation or imported by any person” for “importation by a manufacturer”, and “part” for “subchapter”.

Subsec. (b)(3). Pub. L. 91-604, § 7(a)(7)(A), inserted provision that, if the country of export has emission standards which differ from the standards prescribed under subsec. (a), such vehicle or engine must comply with the standards of such country of export.

Subsec. (c). Pub. L. 91-604, § 7(a)(7)(B), added subsec. (c).

1967—Subsec. (a). Pub. L. 90-148 substituted “conformity with regulations prescribed under this subchapter” for “conformity with regulations prescribed under section 7521 of this title” in par. (1).

## Statutory Notes and Related Subsidiaries

### EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

### MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

## § 7523. Actions to restrain violations

### (a) Jurisdiction

The district courts of the United States shall have jurisdiction to restrain violations of section 7522(a) of this title.

### (b) Actions brought by or in name of United States; subpoenas

Actions to restrain such violations shall be brought by and in the name of the United States. In any such action, subpoenas for witnesses who are required to attend a district court in any district may run into any other district.

(July 14, 1955, ch. 360, title II, § 204, as added Pub. L. 89-272, title I, § 101(8), Oct. 20, 1965, 79 Stat. 994; amended Pub. L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 500; Pub. L. 91-604, § 7(b), Dec. 31, 1970, 84 Stat. 1694; Pub. L. 95-95, title II, § 218(b), Aug. 7, 1977, 91 Stat. 761.)

## Editorial Notes

### CODIFICATION

Section was formerly classified to section 1857f-3 of this title.



States. In any such action, subpoenas for witnesses who are required to attend a district court in any district may run into any other district.

(July 14, 1955, ch. 360, title II, § 204, as added Pub. L. 89-272, title I, § 101(8), Oct. 20, 1965, 79 Stat. 994; amended Pub. L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 500; Pub. L. 91-604, § 7(b), Dec. 31, 1970, 84 Stat. 1694; Pub. L. 95-95, title II, § 218(b), Aug. 7, 1977, 91 Stat. 761.)

#### CODIFICATION

Section was formerly classified to section 1857f-3 of this title.

#### AMENDMENTS

1977—Subsec. (a). Pub. L. 95-95 struck out “paragraph (1), (2), (3), or (4)” after “restrain violations of”.

1970—Subsec. (a). Pub. L. 91-604 inserted reference to par. (4) of section 7522(a) of this title.

1967—Pub. L. 90-148 reenacted section without change.

#### EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

#### PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95-95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95-95, see section 406(a) of Pub. L. 95-95, set out as an Effective Date of 1977 amendment note under section 7401 of this title.

### § 7524. Civil penalties

#### (a) Violations

Any person who violates sections<sup>1</sup> 7522(a)(1), 7522(a)(4), or 7522(a)(5) of this title or any manufacturer or dealer who violates section 7522(a)(3)(A) of this title shall be subject to a civil penalty of not more than \$25,000. Any person other than a manufacturer or dealer who violates section 7522(a)(3)(A) of this title or any person who violates section 7522(a)(3)(B) of this title shall be subject to a civil penalty of not more than \$2,500. Any such violation with respect to paragraph (1), (3)(A), or (4) of section 7522(a) of this title shall constitute a separate offense with respect to each motor vehicle or motor vehicle engine. Any such violation with respect to section 7522(a)(3)(B) of this title shall constitute a separate offense with respect to each part or component. Any person who violates section 7522(a)(2) of this title shall be subject to a civil penalty of not more than \$25,000 per day of violation.

#### (b) Civil actions

The Administrator may commence a civil action to assess and recover any civil penalty under subsection (a) of this section, section 7545(d) of this title, or section 7547(d) of this title. Any action under this subsection may be brought in the district court of the United

States for the district in which the violation is alleged to have occurred or in which the defendant resides or has the Administrator's principal place of business, and the court shall have jurisdiction to assess a civil penalty. In determining the amount of any civil penalty to be assessed under this subsection, the court shall take into account the gravity of the violation, the economic benefit or savings (if any) resulting from the violation, the size of the violator's business, the violator's history of compliance with this subchapter, action taken to remedy the violation, the effect of the penalty on the violator's ability to continue in business, and such other matters as justice may require. In any such action, subpoenas for witnesses who are required to attend a district court in any district may run into any other district.

#### (c) Administrative assessment of certain penalties

##### (1) Administrative penalty authority

In lieu of commencing a civil action under subsection (b) of this section, the Administrator may assess any civil penalty prescribed in subsection (a) of this section, section 7545(d) of this title, or section 7547(d) of this title, except that the maximum amount of penalty sought against each violator in a penalty assessment proceeding shall not exceed \$200,000, unless the Administrator and the Attorney General jointly determine that a matter involving a larger penalty amount is appropriate for administrative penalty assessment. Any such determination by the Administrator and the Attorney General shall not be subject to judicial review. Assessment of a civil penalty under this subsection shall be by an order made on the record after opportunity for a hearing in accordance with sections 554 and 556 of title 5. The Administrator shall issue reasonable rules for discovery and other procedures for hearings under this paragraph. Before issuing such an order, the Administrator shall give written notice to the person to be assessed an administrative penalty of the Administrator's proposal to issue such order and provide such person an opportunity to request such a hearing on the order, within 30 days of the date the notice is received by such person. The Administrator may compromise, or remit, with or without conditions, any administrative penalty which may be imposed under this section.

##### (2) Determining amount

In determining the amount of any civil penalty assessed under this subsection, the Administrator shall take into account the gravity of the violation, the economic benefit or savings (if any) resulting from the violation, the size of the violator's business, the violator's history of compliance with this subchapter, action taken to remedy the violation, the effect of the penalty on the violator's ability to continue in business, and such other matters as justice may require.

##### (3) Effect of Administrator's action

(A) Action by the Administrator under this subsection shall not affect or limit the Administrator's authority to enforce any provision of this chapter; except that any violation,

<sup>1</sup> So in original. Probably should be “section”.

gation to comply with any section of this chapter.

**(4) Finality of order**

An order issued under this subsection shall become final 30 days after its issuance unless a petition for judicial review is filed under paragraph (5).

**(5) Judicial review**

Any person against whom a civil penalty is assessed in accordance with this subsection may seek review of the assessment in the United States District Court for the District of Columbia, or for the district in which the violation is alleged to have occurred, in which such person resides, or where such person's principal place of business is located, within the 30-day period beginning on the date a civil penalty order is issued. Such person shall simultaneously send a copy of the filing by certified mail to the Administrator and the Attorney General. The Administrator shall file in the court a certified copy, or certified index, as appropriate, of the record on which the order was issued within 30 days. The court shall not set aside or remand any order issued in accordance with the requirements of this subsection unless there is not substantial evidence in the record, taken as a whole, to support the finding of a violation or unless the Administrator's assessment of the penalty constitutes an abuse of discretion, and the court shall not impose additional civil penalties unless the Administrator's assessment of the penalty constitutes an abuse of discretion. In any proceedings, the United States may seek to recover civil penalties assessed under this section.

**(6) Collection**

If any person fails to pay an assessment of a civil penalty imposed by the Administrator as provided in this subsection—

(A) after the order making the assessment has become final, or

(B) after a court in an action brought under paragraph (5) has entered a final judgment in favor of the Administrator,

the Administrator shall request the Attorney General to bring a civil action in an appropriate district court to recover the amount assessed (plus interest at rates established pursuant to section 6621(a)(2) of title 26 from the date of the final order or the date of the final judgment, as the case may be). In such an action, the validity, amount, and appropriateness of the penalty shall not be subject to review. Any person who fails to pay on a timely basis the amount of an assessment of a civil penalty as described in the first sentence of this paragraph shall be required to pay, in addition to that amount and interest, the United States' enforcement expenses, including attorneys fees and costs for collection proceedings, and a quarterly nonpayment penalty for each quarter during which such failure to pay persists. The nonpayment penalty shall be in an amount equal to 10 percent of the aggregate amount of that person's penalties and nonpayment penalties which are unpaid as of the beginning of such quarter.

(July 14, 1955, ch. 360, title I, § 205, as added Pub. L. 89-272, title I, § 101(8), Oct. 20, 1965, 79 Stat. 994; amended Pub. L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 500; Pub. L. 91-604, § 7(c), Dec. 31, 1970, 84 Stat. 1694; Pub. L. 95-95, title II, § 219(c), Aug. 7, 1977, 91 Stat. 762; Pub. L. 101-549, title II, § 228(c), Nov. 15, 1990, 104 Stat. 2508.)

**Editorial Notes**

**CODIFICATION**

Section was formerly classified to section 1857f-4 of this title.

**AMENDMENTS**

1990—Pub. L. 101-549 amended section generally. Prior to amendment, section read as follows: "Any person who violates paragraph (1), (2), or (4) of section 7522(a) of this title or any manufacturer, dealer, or other person who violates paragraph (3)(A) of section 7522(a) of this title shall be subject to a civil penalty of not more than \$10,000. Any person who violates paragraph (3)(B) of such section 7522(a) shall be subject to a civil penalty of not more than \$2,500. Any such violation with respect to paragraph (1), (3), or (4) of section 7522(a) of this title shall constitute a separate offense with respect to each motor vehicle or motor vehicle engine."

1977—Pub. L. 95-95 substituted "Any person who violates paragraph (1), (2), or (4) of section 7522(a) of this title, or any manufacturer, dealer, or other person who violates paragraph (3)(A) of section 7522(a) of this title" for "Any person who violates paragraph (1), (2), (3), or (4) of section 7522(a) of this title" in provisions covering the civil penalty of \$10,000, and inserted provisions for a civil penalty of not more than \$2,500 for violations of par. (3)(B) of section 7522(a) of this title.

1970—Pub. L. 91-604 increased the upper limit of the allowable fine from "\$1,000" to "\$10,000".

1967—Pub. L. 90-148 reenacted section without change.

**Statutory Notes and Related Subsidiaries**

**EFFECTIVE DATE OF 1977 AMENDMENT**

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

**§ 7525. Motor vehicle and motor vehicle engine compliance testing and certification**

**(a) Testing and issuance of certificate of conformity**

(1) The Administrator shall test, or require to be tested in such manner as he deems appropriate, any new motor vehicle or new motor vehicle engine submitted by a manufacturer to determine whether such vehicle or engine conforms with the regulations prescribed under section 7521 of this title. If such vehicle or engine conforms to such regulations, the Administrator shall issue a certificate of conformity upon such terms, and for such period (not in excess of one year), as he may prescribe. In the case of any original equipment manufacturer (as defined by the Administrator in regulations promulgated before November 15, 1990) of vehicles or vehicle engines whose projected sales in the United States for any model year (as determined by the Administrator) will not exceed 300, the Administrator shall not require, for purposes of determining compliance with regulations under section 7521 of this title for the useful life of the vehicle or engine, operation of any vehicle or en-

engine manufactured during such model year for more than 5,000 miles or 160 hours, respectively, unless the Administrator, by regulation, prescribes otherwise. The Administrator shall apply any adjustment factors that the Administrator deems appropriate to assure that each vehicle or engine will comply during its useful life (as determined under section 7521(d) of this title) with the regulations prescribed under section 7521 of this title.

(2) The Administrator shall test any emission control system incorporated in a motor vehicle or motor vehicle engine submitted to him by any person, in order to determine whether such system enables such vehicle or engine to conform to the standards required to be prescribed under section 7521(b) of this title. If the Administrator finds on the basis of such tests that such vehicle or engine conforms to such standards, the Administrator shall issue a verification of compliance with emission standards for such system when incorporated in vehicles of a class of which the tested vehicle is representative. He shall inform manufacturers and the National Academy of Sciences, and make available to the public, the results of such tests. Tests under this paragraph shall be conducted under such terms and conditions (including requirements for preliminary testing by qualified independent laboratories) as the Administrator may prescribe by regulations.

(3)(A) A certificate of conformity may be issued under this section only if the Administrator determines that the manufacturer (or in the case of a vehicle or engine for import, any person) has established to the satisfaction of the Administrator that any emission control device, system, or element of design installed on, or incorporated in, such vehicle or engine conforms to applicable requirements of section 7521(a)(4) of this title.

(B) The Administrator may conduct such tests and may require the manufacturer (or any such person) to conduct such tests and provide such information as is necessary to carry out subparagraph (A) of this paragraph. Such requirements shall include a requirement for prompt reporting of the emission of any unregulated pollutant from a system, device, or element of design if such pollutant was not emitted, or was emitted in significantly lesser amounts, from the vehicle or engine without use of the system, device, or element of design.

(4)(A) Not later than 12 months after November 15, 1990, the Administrator shall revise the regulations promulgated under this subsection to add test procedures capable of determining whether model year 1994 and later model year light-duty vehicles and light-duty trucks, when properly maintained and used, will pass the inspection methods and procedures established under section 7541(b) of this title for that model year, under conditions reasonably likely to be encountered in the conduct of inspection and maintenance programs, but which those programs cannot reasonably influence or control. The conditions shall include fuel characteristics, ambient temperature, and short (30 minutes or less) waiting periods before tests are conducted. The Administrator shall not grant a certificate of conformity under this subsection

for any 1994 or later model year vehicle or engine that the Administrator concludes cannot pass the test procedures established under this paragraph.

(B) From time to time, the Administrator may revise the regulations promulgated under subparagraph (A), as the Administrator deems appropriate.

(5)(A) A motor vehicle engine (including all engine emission controls) may be installed in an exempted specially produced motor vehicle if the motor vehicle engine is from a motor vehicle that is covered by a certificate of conformity issued by the Administrator for the model year in which the exempted specially produced motor vehicle is produced, or the motor vehicle engine is covered by an Executive order subject to regulations promulgated by the California Air Resources Board for the model year in which the exempted specially produced motor vehicle is produced, and—

(i) the manufacturer of the engine supplies written instructions to the Administrator and the manufacturer of the exempted specially produced motor vehicle explaining how to install the engine and maintain functionality of the engine's emission control system and the on-board diagnostic system (commonly known as "OBD"), except with respect to evaporative emissions;

(ii) the manufacturer of the exempted specially produced motor vehicle installs the engine in accordance with such instructions and certifies such installation in accordance with subparagraph (E);

(iii) the installation instructions include emission control warranty information from the engine manufacturer in compliance with section 7541 of this title, including where warranty repairs can be made, emission control labels to be affixed to the vehicle, and the certificate of conformity number for the applicable vehicle in which the engine was originally intended or the applicable Executive order number for the engine; and

(iv) the manufacturer of the exempted specially produced motor vehicle does not produce more than 325 such vehicles in the calendar year in which the vehicle is produced.

(B) A motor vehicle containing an engine compliant with the requirements of subparagraph (A) shall be treated as meeting the requirements of section 7521 of this title applicable to new vehicles produced or imported in the model year in which the exempted specially produced motor vehicle is produced or imported.

(C) Engine installations that are not performed in accordance with installation instructions provided by the manufacturer and alterations to the engine not in accordance with the installation instructions shall—

(i) be treated as prohibited acts by the installer under section 7522 of this title and any applicable regulations; and

(ii) subject to civil penalties under section 7524(a) of this title, civil actions under section 7524(b) of this title, and administrative assessment of penalties under section 7524(c) of this title.

(D) The manufacturer of an exempted specially produced motor vehicle that has an en-



gine compliant with the requirements of subparagraph (A) shall provide to the purchaser of such vehicle all information received by the manufacturer from the engine manufacturer, including information regarding emissions warranties from the engine manufacturer and all emissions-related recalls by the engine manufacturer.

(E) To qualify to install an engine under this paragraph, and sell, offer for sale, introduce into commerce, deliver for introduction into commerce or import an exempted specially produced motor vehicle, a manufacturer of exempted specially produced motor vehicles shall register with the Administrator at such time and in such manner as the Administrator determines appropriate. The manufacturer shall submit an annual report to the Administrator that includes—

(i) a description of the exempted specially produced motor vehicles and engines installed in such vehicles;

(ii) the certificate of conformity number issued to the motor vehicle in which the engine was originally intended or the applicable Executive order number for the engine; and

(iii) a certification that it produced all exempted specially produced motor vehicles according to the written instructions from the engine manufacturer, and otherwise that the engine conforms in all material respects to the description in the application for the applicable certificate of conformity or Executive order.

(F) Exempted specially produced motor vehicles compliant with this paragraph shall be exempted from—

(i) motor vehicle certification testing under this section; and

(ii) vehicle emission control inspection and maintenance programs required under section 7510 of this title.

(G)(i) Except as provided in subparagraphs (A) through (F), a person engaged in the manufacturing or assembling of exempted specially produced motor vehicles shall be considered a manufacturer for purposes of this chapter.

(ii) Nothing in this paragraph shall be construed to exempt any person from the prohibitions in section 7522(a)(3) of this title or the requirements in sections 7542, 7525(c), or 7521(m)(5) of this title.

(H) In this paragraph:

(i) The term “exempted specially produced motor vehicle” means a light-duty vehicle or light-duty truck produced by a low-volume manufacturer and that—

(I) is intended to resemble the body of another motor vehicle that was manufactured not less than 25 years before the manufacture of the exempted specially produced motor vehicle; and

(II) is manufactured under a license for the product configuration, trade dress, trademark, or patent, for the motor vehicle that is intended to be replicated from the original manufacturer, its successors or assignees, or current owner of such product configuration, trade dress, trademark, or patent rights.

(ii) The term “low-volume manufacturer” means a motor vehicle manufacturer, other

than a person who is registered as an importer under section 30141 of title 49, whose annual worldwide production, including by a parent or subsidiary of the manufacturer, if applicable, is not more than 5,000 motor vehicles.

**(b) Testing procedures; hearing; judicial review; additional evidence**

(1) In order to determine whether new motor vehicles or new motor vehicle engines being manufactured by a manufacturer do in fact conform with the regulations with respect to which the certificate of conformity was issued, the Administrator is authorized to test such vehicles or engines. Such tests may be conducted by the Administrator directly or, in accordance with conditions specified by the Administrator, by the manufacturer.

(2)(A)(i) If, based on tests conducted under paragraph (1) on a sample of new vehicles or engines covered by a certificate of conformity, the Administrator determines that all or part of the vehicles or engines so covered do not conform with the regulations with respect to which the certificate of conformity was issued and with the requirements of section 7521(a)(4) of this title, he may suspend or revoke such certificate in whole or in part, and shall so notify the manufacturer. Such suspension or revocation shall apply in the case of any new motor vehicles or new motor vehicle engines manufactured after the date of such notification (or manufactured before such date if still in the hands of the manufacturer), and shall apply until such time as the Administrator finds that vehicles and engines manufactured by the manufacturer do conform to such regulations and requirements. If, during any period of suspension or revocation, the Administrator finds that a vehicle or engine actually conforms to such regulations and requirements, he shall issue a certificate of conformity applicable to such vehicle or engine.

(ii) If, based on tests conducted under paragraph (1) on any new vehicle or engine, the Administrator determines that such vehicle or engine does not conform with such regulations and requirements, he may suspend or revoke such certificate insofar as it applies to such vehicle or engine until such time as he finds such vehicle or engine actually so conforms with such regulations and requirements, and he shall so notify the manufacturer.

(B)(i) At the request of any manufacturer the Administrator shall grant such manufacturer a hearing as to whether the tests have been properly conducted or any sampling methods have been properly applied, and make a determination on the record with respect to any suspension or revocation under subparagraph (A); but suspension or revocation under subparagraph (A) shall not be stayed by reason of such hearing.

(ii) In any case of actual controversy as to the validity of any determination under clause (i), the manufacturer may at any time prior to the 60th day after such determination is made file a petition with the United States court of appeals for the circuit wherein such manufacturer resides or has his principal place of business for a judicial review of such determination. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Administrator or



other officer designated by him for that purpose. The Administrator thereupon shall file in the court the record of the proceedings on which the Administrator based his determination, as provided in section 2112 of title 28.

(iii) If the petitioner applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

(iv) Upon the filing of the petition referred to in clause (ii), the court shall have jurisdiction to review the order in accordance with chapter 7 of title 5 and to grant appropriate relief as provided in such chapter.

#### (c) Inspection

For purposes of enforcement of this section, officers or employees duly designated by the Administrator, upon presenting appropriate credentials to the manufacturer or person in charge, are authorized (1) to enter, at reasonable times, any plant or other establishment of such manufacturer, for the purpose of conducting tests of vehicles or engines in the hands of the manufacturer, or (2) to inspect, at reasonable times, records, files, papers, processes, controls, and facilities used by such manufacturer in conducting tests under regulations of the Administrator. Each such inspection shall be commenced and completed with reasonable promptness.

#### (d) Rules and regulations

The Administrator shall by regulation establish methods and procedures for making tests under this section.

#### (e) Publication of test results

The Administrator shall make available to the public the results of his tests of any motor vehicle or motor vehicle engine submitted by a manufacturer under subsection (a) as promptly as possible after December 31, 1970, and at the beginning of each model year which begins thereafter. Such results shall be described in such nontechnical manner as will reasonably disclose to prospective ultimate purchasers of new motor vehicles and new motor vehicle engines the comparative performance of the vehicles and engines tested in meeting the standards prescribed under section 7521 of this title.

#### (f) High altitude regulations

All light duty<sup>1</sup> vehicles and engines manufactured during or after model year 1984 and all light-duty trucks manufactured during or after

model year 1995 shall comply with the requirements of section 7521 of this title regardless of the altitude at which they are sold.

#### (g) Nonconformance penalty

(1) In the case of any class or category of heavy-duty vehicles or engines to which a standard promulgated under section 7521(a) of this title applies, except as provided in paragraph (2), a certificate of conformity shall be issued under subsection (a) and shall not be suspended or revoked under subsection (b) for such vehicles or engines manufactured by a manufacturer notwithstanding the failure of such vehicles or engines to meet such standard if such manufacturer pays a nonconformance penalty as provided under regulations promulgated by the Administrator after notice and opportunity for public hearing. In the case of motorcycles to which such a standard applies, such a certificate may be issued notwithstanding such failure if the manufacturer pays such a penalty.

(2) No certificate of conformity may be issued under paragraph (1) with respect to any class or category of vehicle or engine if the degree by which the manufacturer fails to meet any standard promulgated under section 7521(a) of this title with respect to such class or category exceeds the percentage determined under regulations promulgated by the Administrator to be practicable. Such regulations shall require such testing of vehicles or engines being produced as may be necessary to determine the percentage of the classes or categories of vehicles or engines which are not in compliance with the regulations with respect to which a certificate of conformity was issued and shall be promulgated not later than one year after August 7, 1977.

(3) The regulations promulgated under paragraph (1) shall, not later than one year after August 7, 1977, provide for nonconformance penalties in amounts determined under a formula established by the Administrator. Such penalties under such formula—

(A) may vary from pollutant-to-pollutant;

(B) may vary by class or category or vehicle or engine;

(C) shall take into account the extent to which actual emissions of any air pollutant exceed allowable emissions under the standards promulgated under section 7521 of this title;

(D) shall be increased periodically in order to create incentives for the development of production vehicles or engines which achieve the required degree of emission reduction; and

(E) shall remove any competitive disadvantage to manufacturers whose engines or vehicles achieve the required degree of emission reduction (including any such disadvantage arising from the application of paragraph (4)).

(4) In any case in which a certificate of conformity has been issued under this subsection, any warranty required under section 7541(b)(2) of this title and any action under section 7541(c) of this title shall be required to be effective only for the emission levels which the Administrator determines that such certificate was issued and not for the emission levels required under the applicable standard.

(5) The authorities of section 7542(a) of this title shall apply, subject to the conditions of

<sup>1</sup> So in original. Probably should be "light-duty".

section 7542(b)<sup>2</sup> of this title, for purposes of this subsection.

#### (h) Review and revision of regulations

Within 18 months after November 15, 1990, the Administrator shall review and revise as necessary the regulations under subsection<sup>3</sup> (a) and (b) of this section regarding the testing of motor vehicles and motor vehicle engines to insure that vehicles are tested under circumstances which reflect the actual current driving conditions under which motor vehicles are used, including conditions relating to fuel, temperature, acceleration, and altitude.

(July 14, 1955, ch. 360, title II, § 206, as added Pub. L. 91-604, § 8(a), Dec. 31, 1970, 84 Stat. 1694; amended Pub. L. 95-95, title II, §§ 213(a), 214(b), (c), 220, 224(e), Aug. 7, 1977, 91 Stat. 758-760, 762, 768; Pub. L. 95-190, § 14(a)(69), Nov. 16, 1977, 91 Stat. 1403; Pub. L. 101-549, title II, §§ 208, 230(7), (8), Nov. 15, 1990, 104 Stat. 2483, 2529; Pub. L. 114-94, div. B, title XXIV, § 24405(b), Dec. 4, 2015, 129 Stat. 1723.)

#### Editorial Notes

##### REFERENCES IN TEXT

Section 7542 of this title, referred to in subsec. (g)(5), was amended generally by Pub. L. 101-549, title II, § 211, Nov. 15, 1990, 104 Stat. 2487, and provisions formerly contained in section 7542(b) of this title are contained in section 7542(c).

##### CODIFICATION

Section was formerly classified to section 1857f-5 of this title.

##### PRIOR PROVISIONS

A prior section 206 of act July 14, 1955, related to testing of motor vehicles and motor vehicle engines and was classified to section 1857f-5 of this title, prior to repeal by Pub. L. 91-604.

##### AMENDMENTS

2015—Subsec. (a)(5). Pub. L. 114-94 added par. (5).

1990—Subsec. (a)(1). Pub. L. 101-549, § 208(b), inserted new third sentence and struck out former third sentence which read as follows: “In the case of any manufacturer of vehicles or vehicle engines whose projected sales in the United States for any model year (as determined by the Administrator) will not exceed three hundred, the regulations prescribed by the Administrator concerning testing by the manufacturer for purposes of determining compliance with regulations under section 7521 of this title for the useful life of the vehicle or engine shall not require operation of any vehicle or engine manufactured during such model year for more than five thousand miles or one hundred and sixty hours, respectively, but the Administrator shall apply such adjustment factors as he deems appropriate to assure that each such vehicle or engine will comply during its useful life (as determined under section 7521(d) of this title) with the regulations prescribed under section 7521 of this title.”

Subsec. (a)(4). Pub. L. 101-549, § 208(a), added par. (4).

Subsec. (e). Pub. L. 101-549, § 230(7), struck out “announce in the Federal Register and” after “The Administrator shall”.

Subsec. (f). Pub. L. 101-549, § 230(8), struck out par. (1) designation before “All light duty vehicles”, inserted reference to all light-duty trucks manufactured during or after model year 1995, and struck out par. (2) which

required the Administrator to report to Congress by Oct. 1, 1978, on the economic impact and technological feasibility of the requirements of former par. (1).

Subsec. (h). Pub. L. 101-549, § 208(c), added subsec. (h). 1977—Subsec. (a)(1). Pub. L. 95-95, § 220, inserted provisions covering testing by small manufacturers.

Subsec. (a)(3). Pub. L. 95-95, § 214(b), added par. (3).

Subsec. (b)(2)(A)(i). Pub. L. 95-95, § 214(c)(1), (2), substituted “certificate of conformity was issued and with the requirements of section 7521(a)(4) of this title, he may suspend” for “certificate of conformity was issued, he may suspend” and “such regulations and requirements” for “such regulations”.

Subsec. (b)(2)(A)(ii). Pub. L. 95-95, § 214(c)(2), substituted “such regulations and requirements” for “such regulations”.

Subsec. (f). Pub. L. 95-95, § 213(a), added subsec. (f).

Subsec. (g). Pub. L. 95-95, § 224(e), added subsec. (g).

Subsec. (g)(3)(D). Pub. L. 95-190 inserted “shall” before “be”.

#### Statutory Notes and Related Subsidiaries

##### EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

##### EFFECTIVE DATE

Pub. L. 91-604, § 8(b), Dec. 31, 1970, 84 Stat. 1698, provided that: “The amendments made by this section [enacting this section and section 7541 of this title] shall not apply to vehicles or engines imported into the United States before the sixtieth day after the date of enactment of this Act [Dec. 31, 1970].”

##### REGULATIONS

Pub. L. 114-94, div. B, title XXIV, § 24405(c), Dec. 4, 2015, 129 Stat. 1725, provided that: “Not later than 12 months after the date of enactment of this Act [Dec. 4, 2015], the Secretary of Transportation and the Administrator of the Environmental Protection Agency shall issue such regulations as may be necessary to implement the amendments made by subsections (a) [amending section 30114 of Title 49, Transportation] and (b) [amending this section], respectively.”

##### MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

#### § 7541. Compliance by vehicles and engines in actual use

##### (a) Warranty; certification; payment of replacement costs of parts, devices, or components designed for emission control

(1) Effective with respect to vehicles and engines manufactured in model years beginning more than 60 days after December 31, 1970, the manufacturer of each new motor vehicle and new motor vehicle engine shall warrant to the ultimate purchaser and each subsequent purchaser that such vehicle or engine is (A) de-

<sup>2</sup> See References in Text note below.

<sup>3</sup> So in original. Probably should be “subsections”.

section 7542(b)<sup>2</sup> of this title, for purposes of this subsection.

**(h) Review and revision of regulations**

Within 18 months after November 15, 1990, the Administrator shall review and revise as necessary the regulations under subsection<sup>3</sup> (a) and (b) of this section regarding the testing of motor vehicles and motor vehicle engines to insure that vehicles are tested under circumstances which reflect the actual current driving conditions under which motor vehicles are used, including conditions relating to fuel, temperature, acceleration, and altitude.

(July 14, 1955, ch. 360, title II, § 206, as added Pub. L. 91-604, § 8(a), Dec. 31, 1970, 84 Stat. 1694; amended Pub. L. 95-95, title II, §§ 213(a), 214(b), (c), 220, 224(e), Aug. 7, 1977, 91 Stat. 758-760, 762, 768; Pub. L. 95-190, § 14(a)(69), Nov. 16, 1977, 91 Stat. 1403; Pub. L. 101-549, title II, §§ 208, 230(7), (8), Nov. 15, 1990, 104 Stat. 2483, 2529; Pub. L. 114-94, div. B, title XXIV, § 24405(b), Dec. 4, 2015, 129 Stat. 1723.)

**Editorial Notes**

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**CODIFICATION**

Section was formerly classified to section 1857f-5 of this title.

**PRIOR PROVISIONS**

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**AMENDMENTS**

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Subsec. (a)(4). Pub. L. 101-549, § 208(a), added par. (4).

Subsec. (e). Pub. L. 101-549, § 230(7), struck out “announce in the Federal Register and” after “The Administrator shall”.

Subsec. (f). Pub. L. 101-549, § 230(8), struck out par. (1) designation before “All light duty vehicles”, inserted reference to all light-duty trucks manufactured during or after model year 1995, and struck out par. (2) which

required the Administrator to report to Congress by Oct. 1, 1978, on the economic impact and technological feasibility of the requirements of former par. (1).

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Subsec. (a)(3). Pub. L. 95-95, § 214(b), added par. (3).

Subsec. (b)(2)(A)(i). Pub. L. 95-95, § 214(c)(1), (2), substituted “certificate of conformity was issued and with the requirements of section 7521(a)(4) of this title, he may suspend” for “certificate of conformity was issued, he may suspend” and “such regulations and requirements” for “such regulations”.

Subsec. (b)(2)(A)(ii). Pub. L. 95-95, § 214(c)(2), substituted “such regulations and requirements” for “such regulations”.

Subsec. (f). Pub. L. 95-95, § 213(a), added subsec. (f).

Subsec. (g). Pub. L. 95-95, § 224(e), added subsec. (g).

Subsec. (g)(3)(D). Pub. L. 95-190 inserted “shall” before “be”.

**Statutory Notes and Related Subsidiaries**

**EFFECTIVE DATE OF 1977 AMENDMENT**

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

**EFFECTIVE DATE**

Pub. L. 91-604, § 8(b), Dec. 31, 1970, 84 Stat. 1698, provided that: “The amendments made by this section [enacting this section and section 7541 of this title] shall not apply to vehicles or engines imported into the United States before the sixtieth day after the date of enactment of this Act [Dec. 31, 1970].”

**REGULATIONS**

Pub. L. 114-94, div. B, title XXIV, § 24405(c), Dec. 4, 2015, 129 Stat. 1725, provided that: “Not later than 12 months after the date of enactment of this Act [Dec. 4, 2015], the Secretary of Transportation and the Administrator of the Environmental Protection Agency shall issue such regulations as may be necessary to implement the amendments made by subsections (a) [amending section 30114 of Title 49, Transportation] and (b) [amending this section], respectively.”

**MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS**

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

**§ 7541. Compliance by vehicles and engines in actual use**

**(a) Warranty; certification; payment of replacement costs of parts, devices, or components designed for emission control**

(1) Effective with respect to vehicles and engines manufactured in model years beginning more than 60 days after December 31, 1970, the manufacturer of each new motor vehicle and new motor vehicle engine shall warrant to the ultimate purchaser and each subsequent purchaser that such vehicle or engine is (A) de-

<sup>2</sup> See References in Text note below.

<sup>3</sup> So in original. Probably should be “subsections”.



signed, built, and equipped so as to conform at the time of sale with applicable regulations under section 7521 of this title, and (B) free from defects in materials and workmanship which cause such vehicle or engine to fail to conform with applicable regulations for its useful life (as determined under section 7521(d) of this title). In the case of vehicles and engines manufactured in the model year 1995 and thereafter such warranty shall require that the vehicle or engine is free from any such defects for the warranty period provided under subsection (i).

(2) In the case of a motor vehicle part or motor vehicle engine part, the manufacturer or rebuilder of such part may certify that use of such part will not result in a failure of the vehicle or engine to comply with emission standards promulgated under section 7521 of this title. Such certification shall be made only under such regulations as may be promulgated by the Administrator to carry out the purposes of subsection (b). The Administrator shall promulgate such regulations no later than two years following August 7, 1977.

(3) The cost of any part, device, or component of any light-duty vehicle that is designed for emission control and which in the instructions issued pursuant to subsection (c)(3) of this section is scheduled for replacement during the useful life of the vehicle in order to maintain compliance with regulations under section 7521 of this title, the failure of which shall not interfere with the normal performance of the vehicle, and the expected retail price of which, including installation costs, is greater than 2 percent of the suggested retail price of such vehicle, shall be borne or reimbursed at the time of replacement by the vehicle manufacturer and such replacement shall be provided without cost to the ultimate purchaser, subsequent purchaser, or dealer. The term "designed for emission control" as used in the preceding sentence means a catalytic converter, thermal reactor, or other component installed on or in a vehicle for the sole or primary purpose of reducing vehicle emissions (not including those vehicle components which were in general use prior to model year 1968 and the primary function of which is not related to emission control).

**(b) Testing methods and procedures**

If the Administrator determines that (i) there are available testing methods and procedures to ascertain whether, when in actual use throughout its<sup>1</sup> the warranty period (as determined under subsection (i)), each vehicle and engine to which regulations under section 7521 of this title apply complies with the emission standards of such regulations, (ii) such methods and procedures are in accordance with good engineering practices, and (iii) such methods and procedures are reasonably capable of being correlated with tests conducted under section 7525(a)(1) of this title, then—

(1) he shall establish such methods and procedures by regulation, and

(2) at such time as he determines that inspection facilities or equipment are available for purposes of carrying out testing methods

and procedures established under paragraph (1), he shall prescribe regulations which shall require manufacturers to warrant the emission control device or system of each new motor vehicle or new motor vehicle engine to which a regulation under section 7521 of this title applies and which is manufactured in a model year beginning after the Administrator first prescribes warranty regulations under this paragraph (2). The warranty under such regulations shall run to the ultimate purchaser and each subsequent purchaser and shall provide that if—

(A) the vehicle or engine is maintained and operated in accordance with instructions under subsection (c)(3),

(B) it fails to conform at any time during its<sup>1</sup> the warranty period (as determined under subsection (i)) to the regulations prescribed under section 7521 of this title, and

(C) such nonconformity results in the ultimate purchaser (or any subsequent purchaser) of such vehicle or engine having to bear any penalty or other sanction (including the denial of the right to use such vehicle or engine) under State or Federal law,

then such manufacturer shall remedy such nonconformity under such warranty with the cost thereof to be borne by the manufacturer. No such warranty shall be invalid on the basis of any part used in the maintenance or repair of a vehicle or engine if such part was certified as provided under subsection (a)(2).

**(c) Nonconforming vehicles; plan for remedying nonconformity; instructions for maintenance and use; label or tag**

Effective with respect to vehicles and engines manufactured during model years beginning more than 60 days after December 31, 1970—

(1) If the Administrator determines that a substantial number of any class or category of vehicles or engines, although properly maintained and used, do not conform to the regulations prescribed under section 7521 of this title, when in actual use throughout their useful life (as determined under section 7521(d) of this title), he shall immediately notify the manufacturer thereof of such nonconformity, and he shall require the manufacturer to submit a plan for remedying the nonconformity of the vehicles or engines with respect to which such notification is given. The plan shall provide that the nonconformity of any such vehicles or engines which are properly used and maintained will be remedied at the expense of the manufacturer. If the manufacturer disagrees with such determination of nonconformity and so advises the Administrator, the Administrator shall afford the manufacturer and other interested persons an opportunity to present their views and evidence in support thereof at a public hearing. Unless, as a result of such hearing the Administrator withdraws such determination of nonconformity, he shall, within 60 days after the completion of such hearing, order the manufacturer to provide prompt notification of such nonconformity in accordance with paragraph (2).

(2) Any notification required by paragraph (1) with respect to any class or category of ve-

<sup>1</sup> So in original. The word "its" probably should not appear.



hicles or engines shall be given to dealers, ultimate purchasers, and subsequent purchasers (if known) in such manner and containing such information as the Administrator may by regulations require.

(3)(A) The manufacturer shall furnish with each new motor vehicle or motor vehicle engine written instructions for the proper maintenance and use of the vehicle or engine by the ultimate purchaser and such instructions shall correspond to regulations which the Administrator shall promulgate. The manufacturer shall provide in boldface type on the first page of the written maintenance instructions notice that maintenance, replacement, or repair of the emission control devices and systems may be performed by any automotive repair establishment or individual using any automotive part which has been certified as provided in subsection (a)(2).

(B) The instruction under subparagraph (A) of this paragraph shall not include any condition on the ultimate purchaser's using, in connection with such vehicle or engine, any component or service (other than a component or service provided without charge under the terms of the purchase agreement) which is identified by brand, trade, or corporate name; or directly or indirectly distinguishing between service performed by the franchised dealers of such manufacturer or any other service establishments with which such manufacturer has a commercial relationship, and service performed by independent automotive repair facilities with which such manufacturer has no commercial relationship; except that the prohibition of this subsection may be waived by the Administrator if—

(i) the manufacturer satisfies the Administrator that the vehicle or engine will function properly only if the component or service so identified is used in connection with such vehicle or engine, and

(ii) the Administrator finds that such a waiver is in the public interest.

(C) In addition, the manufacturer shall indicate by means of a label or tag permanently affixed to such vehicle or engine that such vehicle or engine is covered by a certificate of conformity issued for the purpose of assuring achievement of emissions standards prescribed under section 7521 of this title. Such label or tag shall contain such other information relating to control of motor vehicle emissions as the Administrator shall prescribe by regulation.

(4) INTERMEDIATE IN-USE STANDARDS.—

(A) MODEL YEARS 1994 AND 1995.—For light-duty trucks of up to 6,000 lbs. gross vehicle weight rating (GVWR) and light-duty vehicles which are subject to standards under table G of section 7521(g)(1) of this title in model years 1994 and 1995 (40 percent of the manufacturer's sales volume in model year 1994 and 80 percent in model year 1995), the standards applicable to NMHC, CO, and NO<sub>x</sub> for purposes of this subsection shall be those set forth in table A below in lieu of the standards for such air pollutants otherwise applicable under this subchapter.

TABLE A—INTERMEDIATE IN-USE STANDARDS LDTS UP TO 6,000 LBS. GVWR AND LIGHT-DUTY VEHICLES

Vehicle type	NMHC	CO	NO <sub>x</sub>
Light-duty vehicles .....	0.32	3.4	0.4*
LDT's (0–3,750 LVW) .....	0.32	5.2	0.4*
LDT's (3,751–5,750 LVW) .....	0.41	6.7	0.7*

\*Not applicable to diesel-fueled vehicles.

(B) MODEL YEARS 1996 AND THEREAFTER.—(i) In the model years 1996 and 1997, light-duty trucks (LDTs) up to 6,000 lbs. gross vehicle weight rating (GVWR) and light-duty vehicles which are not subject to final in-use standards under paragraph (5) (60 percent of the manufacturer's sales volume in model year 1996 and 20 percent in model year 1997) shall be subject to the standards set forth in table A of subparagraph (A) for NMHC, CO, and NO<sub>x</sub> for purposes of this subsection in lieu of those set forth in paragraph (5).

(ii) For LDTs of more than 6,000 lbs. GVWR—

(I) in model year 1996 which are subject to the standards set forth in Table H of section 7521(h) of this title (50%);

(II) in model year 1997 (100%); and

(III) in model year 1998 which are not subject to final in-use standards under paragraph (5) (50%);

the standards for NMHC, CO, and NO<sub>x</sub> for purposes of this subsection shall be those set forth in Table B below in lieu of the standards for such air pollutants otherwise applicable under this subchapter.

TABLE B—INTERMEDIATE IN-USE STANDARDS LDTS MORE THAN 6,000 LBS. GVWR

Vehicle type	NMHC	CO	NO <sub>x</sub>
LDTs (3,751–5,750 lbs. TW) .....	0.40	5.5	0.88*
LDTs (over 5,750 lbs. TW) .....	0.49	6.2	1.38*

\*Not applicable to diesel-fueled vehicles.

(C) USEFUL LIFE.—In the case of the in-use standards applicable under this paragraph, for purposes of applying this subsection, the applicable useful life shall be 5 years or 50,000 miles or the equivalent (whichever first occurs).

(5) FINAL IN-USE STANDARDS.—(A) After the model year 1995, for purposes of applying this subsection, in the case of the percentage specified in the implementation schedule below of each manufacturer's sales volume of light-duty trucks of up to 6,000 lbs. gross vehicle weight rating (GVWR) and light duty<sup>2</sup> vehicles, the standards for NMHC, CO, and NO<sub>x</sub> shall be as provided in Table G in section 7521(g) of this title, except that in applying the standards set forth in Table G for purposes of determining compliance with this subsection, the applicable useful life shall be (i) 5 years or 50,000 miles (or the equivalent) whichever first occurs in the case of standards applicable for purposes of certification at 50,000 miles; and (ii) 10 years or 100,000 miles (or the equivalent), whichever first occurs in the case

<sup>2</sup> So in original. Probably should be "light-duty".

of standards applicable for purposes of certification at 100,000 miles, except that no testing shall be done beyond 7 years or 75,000 miles, or the equivalent whichever first occurs.

**LDTs UP TO 6,000 LBS. GVWR AND LIGHT-DUTY VEHICLE SCHEDULE FOR IMPLEMENTATION OF FINAL IN-USE STANDARDS**

Model year	Percent
1996 .....	40
1997 .....	80
1998 .....	100

(B) After the model year 1997, for purposes of applying this subsection, in the case of the percentage specified in the implementation schedule below of each manufacturer's sales volume of light-duty trucks of more than 6,000 lbs. gross vehicle weight rating (GVWR), the standards for NMHC, CO, and NO<sub>x</sub> shall be as provided in Table H in section 7521(h) of this title, except that in applying the standards set forth in Table H for purposes of determining compliance with this subsection, the applicable useful life shall be (i) 5 years or 50,000 miles (or the equivalent) whichever first occurs in the case of standards applicable for purposes of certification at 50,000 miles; and (ii) 11 years or 120,000 miles (or the equivalent), whichever first occurs in the case of standards applicable for purposes of certification at 120,000 miles, except that no testing shall be done beyond 7 years or 90,000 miles (or the equivalent) whichever first occurs.

**LDTs OF MORE THAN 6,000 LBS. GVWR IMPLEMENTATION SCHEDULE FOR IMPLEMENTATION OF FINAL IN-USE STANDARDS**

Model year	Percent
1998 .....	50
1999 .....	100

(6) **DIESEL VEHICLES; IN-USE USEFUL LIFE AND TESTING.**—(A) In the case of diesel-fueled light-duty trucks up to 6,000 lbs. GVWR and light-duty vehicles, the useful life for purposes of determining in-use compliance with the standards under section 7521(g) of this title for NO<sub>x</sub> shall be a period of 10 years or 100,000 miles (or the equivalent), whichever first occurs, in the case of standards applicable for purposes of certification at 100,000 miles, except that testing shall not be done for a period beyond 7 years or 75,000 miles (or the equivalent) whichever first occurs.

(B) In the case of diesel-fueled light-duty trucks of 6,000 lbs. GVWR or more, the useful life for purposes of determining in-use compliance with the standards under section 7521(h) of this title for NO<sub>x</sub> shall be a period of 11 years or 120,000 miles (or the equivalent), whichever first occurs, in the case of standards applicable for purposes of certification at 120,000 miles, except that testing shall not be done for a period beyond 7 years or 90,000 miles (or the equivalent) whichever first occurs.

**(d) Dealer costs borne by manufacturer**

Any cost obligation of any dealer incurred as a result of any requirement imposed by sub-

section (a), (b), or (c) shall be borne by the manufacturer. The transfer of any such cost obligation from a manufacturer to any dealer through franchise or other agreement is prohibited.

**(e) Cost statement**

If a manufacturer includes in any advertisement a statement respecting the cost or value of emission control devices or systems, such manufacturer shall set forth in such statement the cost or value attributed to such devices or systems by the Secretary of Labor (through the Bureau of Labor Statistics). The Secretary of Labor, and his representatives, shall have the same access for this purpose to the books, documents, papers, and records of a manufacturer as the Comptroller General has to those of a recipient of assistance for purposes of section 7611 of this title.

**(f) Inspection after sale to ultimate purchaser**

Any inspection of a motor vehicle or a motor vehicle engine for purposes of subsection (c)(1), after its sale to the ultimate purchaser, shall be made only if the owner of such vehicle or engine voluntarily permits such inspection to be made, except as may be provided by any State or local inspection program.

**(g) Replacement and maintenance costs borne by owner**

For the purposes of this section, the owner of any motor vehicle or motor vehicle engine warranted under this section is responsible in the proper maintenance of such vehicle or engine to replace and to maintain, at his expense at any service establishment or facility of his choosing, such items as spark plugs, points, condensers, and any other part, item, or device related to emission control (but not designed for emission control under the terms of the last sentence of subsection (a)(3)),<sup>3</sup> unless such part, item, or device is covered by any warranty not mandated by this chapter.

**(h) Dealer certification**

(1) If at any time during the period for which the warranty applies under subsection (b), a motor vehicle fails to conform to the applicable regulations under section 7521 of this title as determined under subsection (b) of this section such nonconformity shall be remedied by the manufacturer at the cost of the manufacturer pursuant to such warranty as provided in subsection (b)(2)(without regard to subparagraph (C) thereof).

(2) Nothing in section 7543(a) of this title shall be construed to prohibit a State from testing, or requiring testing of, a motor vehicle after the date of sale of such vehicle to the ultimate purchaser (except that no new motor vehicle manufacturer or dealer may be required to conduct testing under this paragraph).

**(i) Warranty period**

**(1) In general**

For purposes of subsection (a)(1) and subsection (b) of this section, the warranty period, effective with respect to new light-duty

<sup>3</sup>So in original. The final closing parenthesis probably should not appear.

trucks and new light-duty vehicles and engines, manufactured in the model year 1995 and thereafter, shall be the first 2 years or 24,000 miles of use (whichever first occurs), except as provided in paragraph (2). For purposes of subsection (a)(1) and subsection (b), for other vehicles and engines the warranty period shall be the period established by the Administrator by regulation (promulgated prior to November 15, 1990) for such purposes unless the Administrator subsequently modifies such regulation.

**(2) Specified major emission control components**

In the case of a specified major emission control component, the warranty period for new light-duty trucks and new light-duty vehicles and engines manufactured in the model year 1995 and thereafter for purposes of subsection (a)(1) and subsection (b) shall be 8 years or 80,000 miles of use (whichever first occurs). As used in this paragraph, the term “specified major emission control component” means only a catalytic converter, an electronic emissions control unit, and an onboard emissions diagnostic device, except that the Administrator may designate any other pollution control device or component as a specified major emission control component if—

(A) the device or component was not in general use on vehicles and engines manufactured prior to the model year 1990; and

(B) the Administrator determines that the retail cost (exclusive of installation costs) of such device or component exceeds \$200 (in 1989 dollars), adjusted for inflation or deflation as calculated by the Administrator at the time of such determination.

For purposes of this paragraph, the term “onboard emissions diagnostic device” means any device installed for the purpose of storing or processing emissions related diagnostic information, but not including any parts or other systems which it monitors except specified major emissions control components. Nothing in this chapter shall be construed to provide that any part (other than a part referred to in the preceding sentence) shall be required to be warranted under this chapter for the period of 8 years or 80,000 miles referred to in this paragraph.

**(3) Instructions**

Subparagraph (A) of subsection (b)(2) shall apply only where the Administrator has made a determination that the instructions concerned conform to the requirements of subsection (c)(3).

(July 14, 1955, ch. 360, title II, § 207, as added Pub. L. 91-604, § 8(a), Dec. 31, 1970, 84 Stat. 1696; amended Pub. L. 95-95, title II, §§ 205, 208-210, 212, Aug. 7, 1977, 91 Stat. 754-756, 758; Pub. L. 95-190, § 14(a)(70)-(72), Nov. 16, 1977, 91 Stat. 1403; Pub. L. 101-549, title II, §§ 209, 210, 230(9), Nov. 15, 1990, 104 Stat. 2484, 2485, 2529; Pub. L. 113-109, § 1, June 9, 2014, 128 Stat. 1170.)

**Editorial Notes**

**CODIFICATION**

Section was formerly classified to section 1857f-5a of this title.

**PRIOR PROVISIONS**

A prior section 207 of act July 14, 1955, was renumbered section 208 by Pub. L. 91-604 and is classified to section 7542 of this title.

**AMENDMENTS**

2014—Subsec. (h). Pub. L. 113-109 redesignated pars. (2) and (3) as (1) and (2), respectively, and struck out former par. (1) which read as follows: “Upon the sale of each new light-duty motor vehicle by a dealer, the dealer shall furnish to the purchaser a certificate that such motor vehicle conforms to the applicable regulations under section 7521 of this title, including notice of the purchaser’s rights under paragraph (2).”

1990—Subsec. (a)(1). Pub. L. 101-549, § 209(4), inserted at end “In the case of vehicles and engines manufactured in the model year 1995 and thereafter such warranty shall require that the vehicle or engine is free from any such defects for the warranty period provided under subsection (i).”

Subsec. (b). Pub. L. 101-549, § 209(1), (2), substituted “the warranty period (as determined under subsection (i))” for “useful life (as determined under section 7521(d) of this title)” in introductory provisions and par. (2)(B), and struck out closing provisions which read as follows: “For purposes of the warranty under this subsection, for the period after twenty-four months or twenty-four thousand miles (whichever first occurs) the term ‘emission control device or system’ means a catalytic converter, thermal reactor, or other component installed on or in a vehicle for the sole or primary purpose of reducing vehicle emissions. Such term shall not include those vehicle components which were in general use prior to model year 1968.”

Subsec. (c)(4) to (6). Pub. L. 101-549, § 210, added pars. (4) to (6).

Subsec. (g). Pub. L. 101-549, § 230(9), substituted “the last sentence of subsection (a)(3))” for “the last three sentences of subsection (a)(1)”.

Subsec. (i). Pub. L. 101-549, § 209(3), added subsec. (i). 1977—Subsec. (a). Pub. L. 95-190, § 14(a)(70), designated provisions contained in cl. (3) of subsec. (a), formerly set out as containing cls. (1), (2), and (3), to be par. (3) of subsec. (a) after the amendment by Pub. L. 95-95, § 209(b), which designated provisions of former subsec. (a) as par. (1) and former cls. (1) and (2) as (A) and (B) of par. (1) and added a new par. (2).

Pub. L. 95-95, § 205, added cl. (3).

Subsec. (b). Pub. L. 95-95, § 209(a), (c), inserted provisions to par. (2) that no warranty be held invalid on the basis of any part used in the maintenance or repair of a vehicle or engine if the part was certified as provided in subsec. (a)(2) of this section, and, following par. (2), inserted provisions defining “emission control device or system”.

Subsec. (c)(3). Pub. L. 95-95, § 208, designated existing provisions as subpars. (A) and (C), added requirement for the bold face printing of a required notice on the first page of the written maintenance instructions in subpar. (A), and added subpar. (B).

Subsec. (f). Pub. L. 95-190, § 14(a)(71), redesignated subsec. (f) as added by Pub. L. 95-95, § 212, as (h).

Subsec. (g). Pub. L. 95-95, § 210, added subsec. (g).

Subsec. (h). Pub. L. 95-190, § 14(a)(71), redesignated subsec. (f) as added by Pub. L. 95-95, § 212, as (h).

Subsec. (h)(2). Pub. L. 95-190, § 14(a)(72), substituted “determined under” for “determined and”.

**Statutory Notes and Related Subsidiaries**

**EFFECTIVE DATE OF 1990 AMENDMENT**

Pub. L. 101-549, title II, § 209, Nov. 15, 1990, 104 Stat. 2484, provided that the amendments made by that section are effective with respect to new motor vehicles and engines manufactured in model year 1995 and thereafter.

**EFFECTIVE DATE OF 1977 AMENDMENT**

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d)



of Pub. L. 95-95, set out as a note under section 7401 of this title.

#### EFFECTIVE DATE

Section not applicable to vehicles or engines imported into United States before sixtieth day after Dec. 31, 1970, see section 8(b) of Pub. L. 91-604, set out as a note under section 7525 of this title.

#### MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

### § 7542. Information collection

#### (a) Manufacturer's responsibility

Every manufacturer of new motor vehicles or new motor vehicle engines, and every manufacturer of new motor vehicle or engine parts or components, and other persons subject to the requirements of this part or part C, shall establish and maintain records, perform tests where such testing is not otherwise reasonably available under this part and part C (including fees for testing), make reports and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance with this part and part C and regulations thereunder, or to otherwise carry out the provision of this part and part C, and shall, upon request of an officer or employee duly designated by the Administrator, permit such officer or employee at reasonable times to have access to and copy such records.

#### (b) Enforcement authority

For the purposes of enforcement of this section, officers or employees duly designated by the Administrator upon presenting appropriate credentials are authorized—

- (1) to enter, at reasonable times, any establishment of the manufacturer, or of any person whom the manufacturer engages to perform any activity required by subsection (a), for the purposes of inspecting or observing any activity conducted pursuant to subsection (a), and
- (2) to inspect records, files, papers, processes, controls, and facilities used in performing any activity required by subsection (a), by such manufacturer or by any person whom the manufacturer engages to perform any such activity.

#### (c) Availability to public; trade secrets

Any records, reports, or information obtained under this part or part C shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or a particular portion thereof (other than emission data), to which the Administrator has access under this

section, if made public, would divulge methods or processes entitled to protection as trade secrets of that person, the Administrator shall consider the record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18. Any authorized representative of the Administrator shall be considered an employee of the United States for purposes of section 1905 of title 18. Nothing in this section shall prohibit the Administrator or authorized representative of the Administrator from disclosing records, reports or information to other officers, employees or authorized representatives of the United States concerned with carrying out this chapter or when relevant in any proceeding under this chapter. Nothing in this section shall authorize the withholding of information by the Administrator or any officer or employee under the Administrator's control from the duly authorized committees of the Congress.

(July 14, 1955, ch. 360, title II, §208, formerly §207, as added Pub. L. 89-272, title I, §101(8), Oct. 20, 1965, 79 Stat. 994; amended Pub. L. 90-148, §2, Nov. 21, 1967, 81 Stat. 501; renumbered and amended Pub. L. 91-604, §§8(a), 10(a), 11(a)(2)(A), 15(c)(2), Dec. 31, 1970, 84 Stat. 1694, 1700, 1705, 1713; Pub. L. 101-549, title II, §211, Nov. 15, 1990, 104 Stat. 2487.)

#### Editorial Notes

##### CODIFICATION

Section was formerly classified to section 1857f-6 of this title.

##### PRIOR PROVISIONS

A prior section 208 of act July 14, 1955, as added Nov. 21, 1967, Pub. L. 90-148, §2, 81 Stat. 501, was renumbered section 209 by Pub. L. 91-604 and is classified to section 7543 of this title.

Another prior section 208 of act July 14, 1955, as added Oct. 20, 1965, Pub. L. 89-272, title I, §101(8), 79 Stat. 994, was renumbered section 212 by Pub. L. 90-148, renumbered section 213 by Pub. L. 91-604, renumbered 214 by Pub. L. 93-319, and renumbered section 216 by Pub. L. 95-95, and is classified to section 7550 of this title.

##### AMENDMENTS

1990—Pub. L. 101-549 amended section generally, substituting present provisions for provisions which related to: in subsec. (a), manufacturer's responsibility; and in subsec. (b), availability to public except for trade secrets.

1970—Subsec. (a). Pub. L. 91-604, §§11(a)(2)(A), 15(c)(2), substituted "Administrator" for "Secretary" wherever appearing and "part" for "subchapter".

Subsec. (b). Pub. L. 91-604, §§10(a), 15(c)(2), substituted provisions authorizing the Administrator to make available to the public any records, reports, or information obtained under subsec. (a) of this section, except those shown to the Administrator to be entitled to protection as trade secrets, for provisions that all information reported or otherwise obtained by the Secretary or his representative pursuant to subsec. (a) of this section, which information contains or relates to a trade secret or other matter referred to in section 1905 of title 18, be considered confidential for the purpose of such section 1905, and substituted "Administrator" for "Secretary".

1967—Pub. L. 90-148 reenacted section without change.



## Editorial Notes

### CODIFICATION

Section was formerly classified to section 1857f-6a of this title.

### PRIOR PROVISIONS

A prior section 209 of act July 14, 1955, as added Nov. 21, 1967, Pub. L. 90-148, § 2, 81 Stat. 502, was renumbered section 210 by Pub. L. 91-604 and is classified to section 7544 of this title.

Another prior section 209 of act July 14, 1955, ch. 360, title II, as added Oct. 20, 1965, Pub. L. 89-272, title I, § 101(8), 79 Stat. 995, related to appropriations for the fiscal years ending June 30, 1966, 1967, 1968, and 1969, and was classified to section 1857f-8 of this title, prior to repeal by Pub. L. 89-675, § 2(b), Oct. 15, 1966, 80 Stat. 954.

### AMENDMENTS

1990—Subsec. (e). Pub. L. 101-549 added subsec. (e).

1977—Subsec. (b). Pub. L. 95-95, § 207, designated existing provisions as par. (1), substituted “March 30, 1966, if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards” for “March 30, 1966, unless he finds that such State does not require standards more stringent than applicable Federal standards to meet compelling the extraordinary conditions or that such State standards and accompanying enforcement procedures are not consistent with section 7521(a) of this title”, added subpars. (A), (B), and (C), and added pars. (2) and (3).

Subsecs. (c), (d). Pub. L. 95-95, § 221, added subsec. (c) and redesignated former subsec. (c) as (d).

1970—Subsec. (a). Pub. L. 91-604, § 11(a)(2)(A), substituted “part” for “subchapter”.

Subsec. (b). Pub. L. 91-604, § 15(c)(2), substituted “Administrator” for “Secretary”.

Subsec. (c). Pub. L. 91-604, § 11(a)(2)(A), substituted “part” for “subchapter”.

## Statutory Notes and Related Subsidiaries

### EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

## § 7544. State grants

The Administrator is authorized to make grants to appropriate State agencies in an amount up to two-thirds of the cost of developing and maintaining effective vehicle emission devices and systems inspection and emission testing and control programs, except that—

(1) no such grant shall be made for any part of any State vehicle inspection program which does not directly relate to the cost of the air pollution control aspects of such a program;

(2) no such grant shall be made unless the Secretary of Transportation has certified to the Administrator that such program is consistent with any highway safety program developed pursuant to section 402 of title 23; and

(3) no such grant shall be made unless the program includes provisions designed to insure that emission control devices and systems on vehicles in actual use have not been discontinued or rendered inoperative.

Grants may be made under this section by way of reimbursement in any case in which amounts have been expended by the State before the date on which any such grant was made.

(July 14, 1955, ch. 360, title II, § 210, formerly § 209, as added Pub. L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 502; renumbered and amended Pub. L. 91-604, §§ 8(a), 10(b), Dec. 31, 1970, 84 Stat. 1694, 1700; Pub. L. 95-95, title II, § 204, Aug. 7, 1977, 91 Stat. 754.)

## Editorial Notes

### CODIFICATION

Section was formerly classified to section 1857f-6b of this title.

### PRIOR PROVISIONS

A prior section 210 of act July 14, 1955, was renumbered section 211 by Pub. L. 91-604 and is classified to section 7545 of this title.

### AMENDMENTS

1977—Pub. L. 95-95 inserted provision allowing grants to be made by way of reimbursement in any case in which amounts have been expended by States before the date on which the grants were made.

1970—Pub. L. 91-604, § 10(b), substituted provisions authorizing the Administrator to make grants to appropriate State agencies for the development and maintenance of effective vehicle emission devices and systems inspection and emission testing and control programs, for provisions authorizing the Secretary to make grants to appropriate State air pollution control agencies for the development of meaningful uniform motor vehicle emission device inspection and emission testing programs.

## Statutory Notes and Related Subsidiaries

### EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

## § 7545. Regulation of fuels

### (a) Authority of Administrator to regulate

The Administrator may by regulation designate any fuel or fuel additive (including any fuel or fuel additive used exclusively in nonroad engines or nonroad vehicles) and, after such date or dates as may be prescribed by him, no manufacturer or processor of any such fuel or additive may sell, offer for sale, or introduce into commerce such fuel or additive unless the Administrator has registered such fuel or additive in accordance with subsection (b) of this section.

### (b) Registration requirement

(1) For the purpose of registration of fuels and fuel additives, the Administrator shall require—

(A) the manufacturer of any fuel to notify him as to the commercial identifying name and manufacturer of any additive contained in such fuel; the range of concentration of any additive in the fuel; and the purpose-in-use of any such additive; and

(B) the manufacturer of any additive to notify him as to the chemical composition of such additive.

(2) For the purpose of registration of fuels and fuel additives, the Administrator shall, on a regular basis, require the manufacturer of any fuel or fuel additive—

(A) to conduct tests to determine potential public health and environmental effects of the fuel or additive (including carcinogenic, teratogenic, or mutagenic effects); and

(B) to furnish the description of any analytical technique that can be used to detect and measure any additive in such fuel, the recommended range of concentration of such additive, and the recommended purpose-in-use of such additive, and such other information as is reasonable and necessary to determine the emissions resulting from the use of the fuel or additive contained in such fuel, the effect of such fuel or additive on the emission control performance of any vehicle, vehicle engine, nonroad engine or nonroad vehicle, or the extent to which such emissions affect the public health or welfare.

Tests under subparagraph (A) shall be conducted in conformity with test procedures and protocols established by the Administrator. The result of such tests shall not be considered confidential.

(3) Upon compliance with the provision of this subsection, including assurances that the Administrator will receive changes in the information required, the Administrator shall register such fuel or fuel additive.

(4) STUDY ON CERTAIN FUEL ADDITIVES AND BLENDESTOCKS.—

(A) IN GENERAL.—Not later than 2 years after August 8, 2005, the Administrator shall—

(i) conduct a study on the effects on public health (including the effects on children, pregnant women, minority or low-income communities, and other sensitive populations), air quality, and water resources of increased use of, and the feasibility of using as substitutes for methyl tertiary butyl ether in gasoline—

- (I) ethyl tertiary butyl ether;
- (II) tertiary amyl methyl ether;
- (III) di-isopropyl ether;
- (IV) tertiary butyl alcohol;
- (V) other ethers and heavy alcohols, as determined by then<sup>1</sup> Administrator;
- (VI) ethanol;
- (VII) iso-octane; and
- (VIII) alkylates; and

(ii) conduct a study on the effects on public health (including the effects on children, pregnant women, minority or low-income communities, and other sensitive populations), air quality, and water resources of the adjustment for ethanol-blended reformu-

lated gasoline to the volatile organic compounds performance requirements that are applicable under paragraphs (1) and (3) of subsection (k); and

(iii) submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report describing the results of the studies under clauses (i) and (ii).

(B) CONTRACTS FOR STUDY.—In carrying out this paragraph, the Administrator may enter into one or more contracts with nongovernmental entities such as—

- (i) the national energy laboratories; and
- (ii) institutions of higher education (as defined in section 1001 of title 20).

**(c) Offending fuels and fuel additives; control; prohibition**

(1) The Administrator may, from time to time on the basis of information obtained under subsection (b) of this section or other information available to him, by regulation, control or prohibit the manufacture, introduction into commerce, offering for sale, or sale of any fuel or fuel additive for use in a motor vehicle, motor vehicle engine, or nonroad engine or nonroad vehicle if, in the judgment of the Administrator, any fuel or fuel additive or any emission product of such fuel or fuel additive causes, or contributes, to air pollution or water pollution (including any degradation in the quality of groundwater) that may reasonably be anticipated to endanger the public health or welfare, or (B)<sup>2</sup> if emission products of such fuel or fuel additive will impair to a significant degree the performance of any emission control device or system which is in general use, or which the Administrator finds has been developed to a point where in a reasonable time it would be in general use were such regulation to be promulgated.

(2)(A) No fuel, class of fuels, or fuel additive may be controlled or prohibited by the Administrator pursuant to clause (A) of paragraph (1) except after consideration of all relevant medical and scientific evidence available to him, including consideration of other technologically or economically feasible means of achieving emission standards under section 7521 of this title.

(B) No fuel or fuel additive may be controlled or prohibited by the Administrator pursuant to clause (B) of paragraph (1) except after consideration of available scientific and economic data, including a cost benefit analysis comparing emission control devices or systems which are or will be in general use and require the proposed control or prohibition with emission control devices or systems which are or will be in general use and do not require the proposed control or prohibition. On request of a manufacturer of motor vehicles, motor vehicle engines, fuels, or fuel additives submitted within 10 days of notice of proposed rulemaking, the Administrator shall hold a public hearing and publish findings with respect to any matter he is required to consider under this subparagraph. Such findings shall be published at the time of promulgation of final regulations.

<sup>1</sup> So in original. Probably should be “the”.

<sup>2</sup> So in original. Par. (1) does not contain a cl. (A).

(C) No fuel or fuel additive may be prohibited by the Administrator under paragraph (1) unless he finds, and publishes such finding, that in his judgment such prohibition will not cause the use of any other fuel or fuel additive which will produce emissions which will endanger the public health or welfare to the same or greater degree than the use of the fuel or fuel additive proposed to be prohibited.

(3)(A) For the purpose of obtaining evidence and data to carry out paragraph (2), the Administrator may require the manufacturer of any motor vehicle or motor vehicle engine to furnish any information which has been developed concerning the emissions from motor vehicles resulting from the use of any fuel or fuel additive, or the effect of such use on the performance of any emission control device or system.

(B) In obtaining information under subparagraph (A), section 7607(a) of this title (relating to subpoenas) shall be applicable.

(4)(A) Except as otherwise provided in subparagraph (B) or (C), no State (or political subdivision thereof) may prescribe or attempt to enforce, for purposes of motor vehicle emission control, any control or prohibition respecting any characteristic or component of a fuel or fuel additive in a motor vehicle or motor vehicle engine—

(i) if the Administrator has found that no control or prohibition of the characteristic or component of a fuel or fuel additive under paragraph (1) is necessary and has published his finding in the Federal Register, or

(ii) if the Administrator has prescribed under paragraph (1) a control or prohibition applicable to such characteristic or component of a fuel or fuel additive, unless State prohibition or control is identical to the prohibition or control prescribed by the Administrator.

(B) Any State for which application of section 7543(a) of this title has at any time been waived under section 7543(b) of this title may at any time prescribe and enforce, for the purpose of motor vehicle emission control, a control or prohibition respecting any fuel or fuel additive.

(C)(i) A State may prescribe and enforce, for purposes of motor vehicle emission control, a control or prohibition respecting the use of a fuel or fuel additive in a motor vehicle or motor vehicle engine if an applicable implementation plan for such State under section 7410 of this title so provides. The Administrator may approve such provision in an implementation plan, or promulgate an implementation plan containing such a provision, only if he finds that the State control or prohibition is necessary to achieve the national primary or secondary ambient air quality standard which the plan implements. The Administrator may find that a State control or prohibition is necessary to achieve that standard if no other measures that would bring about timely attainment exist, or if other measures exist and are technically possible to implement, but are unreasonable or impracticable. The Administrator may make a finding of necessity under this subparagraph even if the plan for the area does not contain an approved demonstration of timely attainment.

(ii) The Administrator may temporarily waive a control or prohibition respecting the use of a

fuel or fuel additive required or regulated by the Administrator pursuant to subsection (c), (h), (i), (k), or (m) of this section or prescribed in an applicable implementation plan under section 7410 of this title approved by the Administrator under clause (i) of this subparagraph if, after consultation with, and concurrence by, the Secretary of Energy, the Administrator determines that—

(I) extreme and unusual fuel or fuel additive supply circumstances exist in a State or region of the Nation which prevent the distribution of an adequate supply of the fuel or fuel additive to consumers;

(II) such extreme and unusual fuel and fuel additive supply circumstances are the result of a natural disaster, an Act of God, a pipeline or refinery equipment failure, or another event that could not reasonably have been foreseen or prevented and not the lack of prudent planning on the part of the suppliers of the fuel or fuel additive to such State or region; and

(III) it is in the public interest to grant the waiver (for example, when a waiver is necessary to meet projected temporary shortfalls in the supply of the fuel or fuel additive in a State or region of the Nation which cannot otherwise be compensated for).

(iii) If the Administrator makes the determinations required under clause (ii), such a temporary extreme and unusual fuel and fuel additive supply circumstances waiver shall be permitted only if—

(I) the waiver applies to the smallest geographic area necessary to address the extreme and unusual fuel and fuel additive supply circumstances;

(II) the waiver is effective for a period of 20 calendar days or, if the Administrator determines that a shorter waiver period is adequate, for the shortest practicable time period necessary to permit the correction of the extreme and unusual fuel and fuel additive supply circumstances and to mitigate impact on air quality;

(III) the waiver permits a transitional period, the exact duration of which shall be determined by the Administrator (but which shall be for the shortest practicable period), after the termination of the temporary waiver to permit wholesalers and retailers to blend down their wholesale and retail inventory;

(IV) the waiver applies to all persons in the motor fuel distribution system; and

(V) the Administrator has given public notice to all parties in the motor fuel distribution system, and local and State regulators, in the State or region to be covered by the waiver.

The term “motor fuel distribution system” as used in this clause shall be defined by the Administrator through rulemaking.

(iv) Within 180 days of August 8, 2005, the Administrator shall promulgate regulations to implement clauses (ii) and (iii).

(v)<sup>3</sup> Nothing in this subparagraph shall—

(I) limit or otherwise affect the application of any other waiver authority of the Adminis-

<sup>3</sup> So in original. Two cls. (v) have been enacted.



trator pursuant to this section or pursuant to a regulation promulgated pursuant to this section; and

(II) subject any State or person to an enforcement action, penalties, or liability solely arising from actions taken pursuant to the issuance of a waiver under this subparagraph.

(v)(I)<sup>3</sup> The Administrator shall have no authority, when considering a State implementation plan or a State implementation plan revision, to approve under this paragraph any fuel included in such plan or revision if the effect of such approval increases the total number of fuels approved under this paragraph as of September 1, 2004, in all State implementation plans.

(II) The Administrator, in consultation with the Secretary of Energy, shall determine the total number of fuels approved under this paragraph as of September 1, 2004, in all State implementation plans and shall publish a list of such fuels, including the States and Petroleum Administration for Defense District in which they are used, in the Federal Register for public review and comment no later than 90 days after August 8, 2005.

(III) The Administrator shall remove a fuel from the list published under subclause (II) if a fuel ceases to be included in a State implementation plan or if a fuel in a State implementation plan is identical to a Federal fuel formulation implemented by the Administrator, but the Administrator shall not reduce the total number of fuels authorized under the list published under subclause (II).

(IV) Subclause (I) shall not limit the Administrator's authority to approve a control or prohibition respecting any new fuel under this paragraph in a State implementation plan or revision to a State implementation plan if such new fuel—

(aa) completely replaces a fuel on the list published under subclause (II); or

(bb) does not increase the total number of fuels on the list published under subclause (II) as of September 1, 2004.

In the event that the total number of fuels on the list published under subclause (II) at the time of the Administrator's consideration of a control or prohibition respecting a new fuel is lower than the total number of fuels on such list as of September 1, 2004, the Administrator may approve a control or prohibition respecting a new fuel under this subclause if the Administrator, after consultation with the Secretary of Energy, publishes in the Federal Register after notice and comment a finding that, in the Administrator's judgment, such control or prohibition respecting a new fuel will not cause fuel supply or distribution interruptions or have a significant adverse impact on fuel producibility in the affected area or contiguous areas.

(V) The Administrator shall have no authority under this paragraph, when considering any particular State's implementation plan or a revision to that State's implementation plan, to approve any fuel unless that fuel was, as of the date of such consideration, approved in at least one State implementation plan in the applicable Petroleum Administration for Defense District.

However, the Administrator may approve as part of a State implementation plan or State implementation plan revision a fuel with a summertime Reid Vapor Pressure of 7.0 psi. In no event shall such approval by the Administrator cause an increase in the total number of fuels on the list published under subclause (II).

(VI) Nothing in this clause shall be construed to have any effect regarding any available authority of States to require the use of any fuel additive registered in accordance with subsection (b), including any fuel additive registered in accordance with subsection (b) after August 8, 2005.

#### **(d) Penalties and injunctions**

##### **(1) Civil penalties**

Any person who violates subsection (a), (f), (g), (k), (l), (m), (n), or (o) of this section or the regulations prescribed under subsection (c), (h), (i), (k), (l), (m), (n), or (o) of this section or who fails to furnish any information or conduct any tests required by the Administrator under subsection (b) of this section shall be liable to the United States for a civil penalty of not more than the sum of \$25,000 for every day of such violation and the amount of economic benefit or savings resulting from the violation. Any violation with respect to a regulation prescribed under subsection (c), (k), (l), (m), or (o) of this section which establishes a regulatory standard based upon a multiday averaging period shall constitute a separate day of violation for each and every day in the averaging period. Civil penalties shall be assessed in accordance with subsections (b) and (c) of section 7524 of this title.

##### **(2) Injunctive authority**

The district courts of the United States shall have jurisdiction to restrain violations of subsections (a), (f), (g), (k), (l), (m), (n), and (o) of this section and of the regulations prescribed under subsections (c), (h), (i), (k), (l), (m), (n), and (o) of this section, to award other appropriate relief, and to compel the furnishing of information and the conduct of tests required by the Administrator under subsection (b) of this section. Actions to restrain such violations and compel such actions shall be brought by and in the name of the United States. In any such action, subpoenas for witnesses who are required to attend a district court in any district may run into any other district.

#### **(e) Testing of fuels and fuel additives**

(1) Not later than one year after August 7, 1977, and after notice and opportunity for a public hearing, the Administrator shall promulgate regulations which implement the authority under subsection (b)(2)(A) and (B) with respect to each fuel or fuel additive which is registered on the date of promulgation of such regulations and with respect to each fuel or fuel additive for which an application for registration is filed thereafter.

(2) Regulations under subsection (b) to carry out this subsection shall require that the requisite information be provided to the Administrator by each such manufacturer—

(A) prior to registration, in the case of any fuel or fuel additive which is not registered on



the date of promulgation of such regulations; or

(B) not later than three years after the date of promulgation of such regulations, in the case of any fuel or fuel additive which is registered on such date.

(3) In promulgating such regulations, the Administrator may—

(A) exempt any small business (as defined in such regulations) from or defer or modify the requirements of, such regulations with respect to any such small business;

(B) provide for cost-sharing with respect to the testing of any fuel or fuel additive which is manufactured or processed by two or more persons or otherwise provide for shared responsibility to meet the requirements of this section without duplication; or

(C) exempt any person from such regulations with respect to a particular fuel or fuel additive upon a finding that any additional testing of such fuel or fuel additive would be duplicative of adequate existing testing.

**(f) New fuels and fuel additives**

(1)(A) Effective upon March 31, 1977, it shall be unlawful for any manufacturer of any fuel or fuel additive to first introduce into commerce, or to increase the concentration in use of, any fuel or fuel additive for general use in light duty motor vehicles manufactured after model year 1974 which is not substantially similar to any fuel or fuel additive utilized in the certification of any model year 1975, or subsequent model year, vehicle or engine under section 7525 of this title.

(B) Effective upon November 15, 1990, it shall be unlawful for any manufacturer of any fuel or fuel additive to first introduce into commerce, or to increase the concentration in use of, any fuel or fuel additive for use by any person in motor vehicles manufactured after model year 1974 which is not substantially similar to any fuel or fuel additive utilized in the certification of any model year 1975, or subsequent model year, vehicle or engine under section 7525 of this title.

(2) Effective November 30, 1977, it shall be unlawful for any manufacturer of any fuel to introduce into commerce any gasoline which contains a concentration of manganese in excess of .0625 grams per gallon of fuel, except as otherwise provided pursuant to a waiver under paragraph (4).

(3) Any manufacturer of any fuel or fuel additive which prior to March 31, 1977, and after January 1, 1974, first introduced into commerce or increased the concentration in use of a fuel or fuel additive that would otherwise have been prohibited under paragraph (1)(A) if introduced on or after March 31, 1977 shall, not later than September 15, 1978, cease to distribute such fuel or fuel additive in commerce. During the period beginning 180 days after August 7, 1977, and before September 15, 1978, the Administrator shall prohibit, or restrict the concentration of any fuel additive which he determines will cause or contribute to the failure of an emission control device or system (over the useful life of any vehicle in which such device or system is used) to achieve compliance by the vehicle with the

emission standards with respect to which it has been certified under section 7525 of this title.

(4) The Administrator, upon application of any manufacturer of any fuel or fuel additive, may waive the prohibitions established under paragraph (1) or (3) of this subsection or the limitation specified in paragraph (2) of this subsection, if he determines that the applicant has established that such fuel or fuel additive or a specified concentration thereof, and the emission products of such fuel or fuel additive or specified concentration thereof, will not cause or contribute to a failure of any emission control device or system (over the useful life of the motor vehicle, motor vehicle engine, nonroad engine or nonroad vehicle in which such device or system is used) to achieve compliance by the vehicle or engine with the emission standards with respect to which it has been certified pursuant to sections 7525 and 7547(a) of this title. The Administrator shall take final action to grant or deny an application submitted under this paragraph, after public notice and comment, within 270 days of the receipt of such an application.

(5) No action of the Administrator under this section may be stayed by any court pending judicial review of such action.

**(g) Misfueling**

(1) No person shall introduce, or cause or allow the introduction of, leaded gasoline into any motor vehicle which is labeled "unleaded gasoline only," which is equipped with a gasoline tank filler inlet designed for the introduction of unleaded gasoline, which is a 1990 or later model year motor vehicle, or which such person knows or should know is a vehicle designed solely for the use of unleaded gasoline.

(2) Beginning October 1, 1993, no person shall introduce or cause or allow the introduction into any motor vehicle of diesel fuel which such person knows or should know contains a concentration of sulfur in excess of 0.05 percent (by weight) or which fails to meet a cetane index minimum of 40 or such equivalent alternative aromatic level as prescribed by the Administrator under subsection (i)(2).

**(h) Reid Vapor Pressure requirements**

**(1) Prohibition**

Not later than 6 months after November 15, 1990, the Administrator shall promulgate regulations making it unlawful for any person during the high ozone season (as defined by the Administrator) to sell, offer for sale, dispense, supply, offer for supply, transport, or introduce into commerce gasoline with a Reid Vapor Pressure in excess of 9.0 pounds per square inch (psi). Such regulations shall also establish more stringent Reid Vapor Pressure standards in a nonattainment area as the Administrator finds necessary to generally achieve comparable evaporative emissions (on a per-vehicle basis) in nonattainment areas, taking into consideration the enforceability of such standards, the need of an area for emission control, and economic factors.

**(2) Attainment areas**

The regulations under this subsection shall not make it unlawful for any person to sell, offer for supply, transport, or introduce into

commerce gasoline with a Reid Vapor Pressure of 9.0 pounds per square inch (psi) or lower in any area designated under section 7407 of this title as an attainment area. Notwithstanding the preceding sentence, the Administrator may impose a Reid vapor pressure requirement lower than 9.0 pounds per square inch (psi) in any area, formerly an ozone non-attainment area, which has been redesignated as an attainment area.

**(3) Effective date; enforcement**

The regulations under this subsection shall provide that the requirements of this subsection shall take effect not later than the high ozone season for 1992, and shall include such provisions as the Administrator determines are necessary to implement and enforce the requirements of this subsection.

**(4) Ethanol waiver**

For fuel blends containing gasoline and 10 percent denatured anhydrous ethanol, the Reid vapor pressure limitation under this subsection shall be one pound per square inch (psi) greater than the applicable Reid vapor pressure limitations established under paragraph (1); *Provided, however*, That a distributor, blender, marketer, reseller, carrier, retailer, or wholesale purchaser-consumer shall be deemed to be in full compliance with the provisions of this subsection and the regulations promulgated thereunder if it can demonstrate (by showing receipt of a certification or other evidence acceptable to the Administrator) that—

(A) the gasoline portion of the blend complies with the Reid vapor pressure limitations promulgated pursuant to this subsection;

(B) the ethanol portion of the blend does not exceed its waiver condition under subsection (f)(4); and

(C) no additional alcohol or other additive has been added to increase the Reid Vapor Pressure of the ethanol portion of the blend.

**(5) Exclusion from ethanol waiver**

**(A) Promulgation of regulations**

Upon notification, accompanied by supporting documentation, from the Governor of a State that the Reid vapor pressure limitation established by paragraph (4) will increase emissions that contribute to air pollution in any area in the State, the Administrator shall, by regulation, apply, in lieu of the Reid vapor pressure limitation established by paragraph (4), the Reid vapor pressure limitation established by paragraph (1) to all fuel blends containing gasoline and 10 percent denatured anhydrous ethanol that are sold, offered for sale, dispensed, supplied, offered for supply, transported, or introduced into commerce in the area during the high ozone season.

**(B) Deadline for promulgation**

The Administrator shall promulgate regulations under subparagraph (A) not later than 90 days after the date of receipt of a notification from a Governor under that subparagraph.

**(C) Effective date**

**(i) In general**

With respect to an area in a State for which the Governor submits a notification under subparagraph (A), the regulations under that subparagraph shall take effect on the later of—

(I) the first day of the first high ozone season for the area that begins after the date of receipt of the notification; or

(II) 1 year after the date of receipt of the notification.

**(ii) Extension of effective date based on determination of insufficient supply**

**(I) In general**

If, after receipt of a notification with respect to an area from a Governor of a State under subparagraph (A), the Administrator determines, on the Administrator's own motion or on petition of any person and after consultation with the Secretary of Energy, that the promulgation of regulations described in subparagraph (A) would result in an insufficient supply of gasoline in the State, the Administrator, by regulation—

(aa) shall extend the effective date of the regulations under clause (i) with respect to the area for not more than 1 year; and

(bb) may renew the extension under item (aa) for two additional periods, each of which shall not exceed 1 year.

**(II) Deadline for action on petitions**

The Administrator shall act on any petition submitted under subclause (I) not later than 180 days after the date of receipt of the petition.

**(6) Areas covered**

The provisions of this subsection shall apply only to the 48 contiguous States and the District of Columbia.

**(i) Sulfur content requirements for diesel fuel**

(1) Effective October 1, 1993, no person shall manufacture, sell, supply, offer for sale or supply, dispense, transport, or introduce into commerce motor vehicle diesel fuel which contains a concentration of sulfur in excess of 0.05 percent (by weight) or which fails to meet a cetane index minimum of 40.

(2) Not later than 12 months after November 15, 1990, the Administrator shall promulgate regulations to implement and enforce the requirements of paragraph (1). The Administrator may require manufacturers and importers of diesel fuel not intended for use in motor vehicles to dye such fuel in a particular manner in order to segregate it from motor vehicle diesel fuel. The Administrator may establish an equivalent alternative aromatic level to the cetane index specification in paragraph (1).

(3) The sulfur content of fuel required to be used in the certification of 1991 through 1993 model year heavy-duty diesel vehicles and engines shall be 0.10 percent (by weight). The sulfur content and cetane index minimum of fuel

required to be used in the certification of 1994 and later model year heavy-duty diesel vehicles and engines shall comply with the regulations promulgated under paragraph (2).

(4) The States of Alaska and Hawaii may be exempted from the requirements of this subsection in the same manner as provided in section 7625<sup>4</sup> of this title. The Administrator shall take final action on any petition filed under section 7625<sup>4</sup> of this title or this paragraph for an exemption from the requirements of this subsection, within 12 months from the date of the petition.

**(j) Lead substitute gasoline additives**

(1) After November 15, 1990, any person proposing to register any gasoline additive under subsection (a) or to use any previously registered additive as a lead substitute may also elect to register the additive as a lead substitute gasoline additive for reducing valve seat wear by providing the Administrator with such relevant information regarding product identity and composition as the Administrator deems necessary for carrying out the responsibilities of paragraph (2) of this subsection (in addition to other information which may be required under subsection (b)).

(2) In addition to the other testing which may be required under subsection (b), in the case of the lead substitute gasoline additives referred to in paragraph (1), the Administrator shall develop and publish a test procedure to determine the additives' effectiveness in reducing valve seat wear and the additives' tendencies to produce engine deposits and other adverse side effects. The test procedures shall be developed in cooperation with the Secretary of Agriculture and with the input of additive manufacturers, engine and engine components manufacturers, and other interested persons. The Administrator shall enter into arrangements with an independent laboratory to conduct tests of each additive using the test procedures developed and published pursuant to this paragraph. The Administrator shall publish the results of the tests by company and additive name in the Federal Register along with, for comparison purposes, the results of applying the same test procedures to gasoline containing 0.1 gram of lead per gallon in lieu of the lead substitute gasoline additive. The Administrator shall not rank or otherwise rate the lead substitute additives. Test procedures shall be established within 1 year after November 15, 1990. Additives shall be tested within 18 months of November 15, 1990, or 6 months after the lead substitute additives are identified to the Administrator, whichever is later.

(3) The Administrator may impose a user fee to recover the costs of testing of any fuel additive referred to in this subsection. The fee shall be paid by the person proposing to register the fuel additive concerned. Such fee shall not exceed \$20,000 for a single fuel additive.

(4) There are authorized to be appropriated to the Administrator not more than \$1,000,000 for the second full fiscal year after November 15, 1990, to establish test procedures and conduct

engine tests as provided in this subsection. Not more than \$500,000 per year is authorized to be appropriated for each of the 5 subsequent fiscal years.

(5) Any fees collected under this subsection shall be deposited in a special fund in the United States Treasury for licensing and other services which thereafter shall be available for appropriation, to remain available until expended, to carry out the Agency's activities for which the fees were collected.

**(k) Reformulated gasoline for conventional vehicles**

**(1) EPA regulations**

**(A) In general**

Not later than November 15, 1991, the Administrator shall promulgate regulations under this section establishing requirements for reformulated gasoline to be used in gasoline-fueled vehicles in specified nonattainment areas. Such regulations shall require the greatest reduction in emissions of ozone forming volatile organic compounds (during the high ozone season) and emissions of toxic air pollutants (during the entire year) achievable through the reformulation of conventional gasoline, taking into consideration the cost of achieving such emission reductions, any nonair-quality and other air-quality related health and environmental impacts and energy requirements.

**(B) Maintenance of toxic air pollutant emissions reductions from reformulated gasoline**

**(i) Definition of PADD**

In this subparagraph the term "PADD" means a Petroleum Administration for Defense District.

**(ii) Regulations concerning emissions of toxic air pollutants**

Not later than 270 days after August 8, 2005, the Administrator shall establish by regulation, for each refinery or importer (other than a refiner or importer in a State that has received a waiver under section 7543(b) of this title with respect to gasoline produced for use in that State), standards for toxic air pollutants from use of the reformulated gasoline produced or distributed by the refiner or importer that maintain the reduction of the average annual aggregate emissions of toxic air pollutants for reformulated gasoline produced or distributed by the refiner or importer during calendar years 2001 and 2002 (as determined on the basis of data collected by the Administrator with respect to the refiner or importer).

**(iii) Standards applicable to specific refineries or importers**

**(I) Applicability of standards**

For any calendar year, the standards applicable to a refiner or importer under clause (ii) shall apply to the quantity of gasoline produced or distributed by the refiner or importer in the calendar year only to the extent that the quantity is

<sup>4</sup> So in original. Probably should be section "7625-1".



less than or equal to the average annual quantity of reformulated gasoline produced or distributed by the refiner or importer during calendar years 2001 and 2002.

**(II) Applicability of other standards**

For any calendar year, the quantity of gasoline produced or distributed by a refiner or importer that is in excess of the quantity subject to subclause (I) shall be subject to standards for emissions of toxic air pollutants promulgated under subparagraph (A) and paragraph (3)(B).

**(iv) Credit program**

The Administrator shall provide for the granting and use of credits for emissions of toxic air pollutants in the same manner as provided in paragraph (7).

**(v) Regional protection of toxics reduction baselines**

**(I) In general**

Not later than 60 days after August 8, 2005, and not later than April 1 of each calendar year that begins after August 8, 2005, the Administrator shall publish in the Federal Register a report that specifies, with respect to the previous calendar year—

(aa) the quantity of reformulated gasoline produced that is in excess of the average annual quantity of reformulated gasoline produced in 2001 and 2002; and

(bb) the reduction of the average annual aggregate emissions of toxic air pollutants in each PADD, based on retail survey data or data from other appropriate sources.

**(II) Effect of failure to maintain aggregate toxics reductions**

If, in any calendar year, the reduction of the average annual aggregate emissions of toxic air pollutants in a PADD fails to meet or exceed the reduction of the average annual aggregate emissions of toxic air pollutants in the PADD in calendar years 2001 and 2002, the Administrator, not later than 90 days after the date of publication of the report for the calendar year under subclause (I), shall—

(aa) identify, to the maximum extent practicable, the reasons for the failure, including the sources, volumes, and characteristics of reformulated gasoline that contributed to the failure; and

(bb) promulgate revisions to the regulations promulgated under clause (ii), to take effect not earlier than 180 days but not later than 270 days after the date of promulgation, to provide that, notwithstanding clause (iii)(II), all reformulated gasoline produced or distributed at each refiner or importer shall meet the standards applicable under clause (iii)(I) beginning not later than April 1 of the calendar year following publication of the report under

subclause (I) and in each calendar year thereafter.

(vi) Not later than July 1, 2007, the Administrator shall promulgate final regulations to control hazardous air pollutants from motor vehicles and motor vehicle fuels, as provided for in section 80.1045 of title 40, Code of Federal Regulations (as in effect on August 8, 2005), and as authorized under section 7521(l)<sup>5</sup> of this title. If the Administrator promulgates by such date, final regulations to control hazardous air pollutants from motor vehicles and motor vehicle fuels that achieve and maintain greater overall reductions in emissions of air toxics from reformulated gasoline than the reductions that would be achieved under subsection (k)(1)(B) as amended by this clause, then subsections (k)(1)(B)(i) through (k)(1)(B)(v) shall be null and void and regulations promulgated thereunder shall be rescinded and have no further effect.

**(2) General requirements**

The regulations referred to in paragraph (1) shall require that reformulated gasoline comply with paragraph (3) and with each of the following requirements (subject to paragraph (7)):

**(A) NO<sub>x</sub> emissions**

The emissions of oxides of nitrogen (NO<sub>x</sub>) from baseline vehicles when using the reformulated gasoline shall be no greater than the level of such emissions from such vehicles when using baseline gasoline. If the Administrator determines that compliance with the limitation on emissions of oxides of nitrogen under the preceding sentence is technically infeasible, considering the other requirements applicable under this subsection to such gasoline, the Administrator may, as appropriate to ensure compliance with this subparagraph, adjust (or waive entirely), any other requirements of this paragraph or any requirements applicable under paragraph (3)(A).

**(B) Benzene content**

The benzene content of the gasoline shall not exceed 1.0 percent by volume.

**(C) Heavy metals**

The gasoline shall have no heavy metals, including lead or manganese. The Administrator may waive the prohibition contained in this subparagraph for a heavy metal (other than lead) if the Administrator determines that addition of the heavy metal to the gasoline will not increase, on an aggregate mass or cancer-risk basis, toxic air pollutant emissions from motor vehicles.

**(3) More stringent of formula or performance standards**

The regulations referred to in paragraph (1) shall require compliance with the more stringent of either the requirements set forth in subparagraph (A) or the requirements of sub-

<sup>5</sup> So in original. See References in Text note below.



paragraph (B) of this paragraph. For purposes of determining the more stringent provision, clause (i) and clause (ii) of subparagraph (B) shall be considered independently.

**(A) Formula**

**(i) Benzene**

The benzene content of the reformulated gasoline shall not exceed 1.0 percent by volume.

**(ii) Aromatics**

The aromatic hydrocarbon content of the reformulated gasoline shall not exceed 25 percent by volume.

**(iii) Lead**

The reformulated gasoline shall have no lead content.

**(iv) Detergents**

The reformulated gasoline shall contain additives to prevent the accumulation of deposits in engines or vehicle fuel supply systems.

**(B) Performance standard**

**(i) VOC emissions**

During the high ozone season (as defined by the Administrator), the aggregate emissions of ozone forming volatile organic compounds from baseline vehicles when using the reformulated gasoline shall be 15 percent below the aggregate emissions of ozone forming volatile organic compounds from such vehicles when using baseline gasoline. Effective in calendar year 2000 and thereafter, 25 percent shall be substituted for 15 percent in applying this clause, except that the Administrator may adjust such 25 percent requirement to provide for a lesser or greater reduction based on technological feasibility, considering the cost of achieving such reductions in VOC emissions. No such adjustment shall provide for less than a 20 percent reduction below the aggregate emissions of such air pollutants from such vehicles when using baseline gasoline. The reductions required under this clause shall be on a mass basis.

**(ii) Toxics**

During the entire year, the aggregate emissions of toxic air pollutants from baseline vehicles when using the reformulated gasoline shall be 15 percent below the aggregate emissions of toxic air pollutants from such vehicles when using baseline gasoline. Effective in calendar year 2000 and thereafter, 25 percent shall be substituted for 15 percent in applying this clause, except that the Administrator may adjust such 25 percent requirement to provide for a lesser or greater reduction based on technological feasibility, considering the cost of achieving such reductions in toxic air pollutants. No such adjustment shall provide for less than a 20 percent reduction below the aggregate emissions of such air pollutants from such vehicles when using baseline gasoline. The reductions required under this clause shall be on a mass basis.

Any reduction greater than a specific percentage reduction required under this subparagraph shall be treated as satisfying such percentage reduction requirement.

**(4) Certification procedures**

**(A) Regulations**

The regulations under this subsection shall include procedures under which the Administrator shall certify reformulated gasoline as complying with the requirements established pursuant to this subsection. Under such regulations, the Administrator shall establish procedures for any person to petition the Administrator to certify a fuel formulation, or slate of fuel formulations. Such procedures shall further require that the Administrator shall approve or deny such petition within 180 days of receipt. If the Administrator fails to act within such 180-day period, the fuel shall be deemed certified until the Administrator completes action on the petition.

**(B) Certification; equivalency**

The Administrator shall certify a fuel formulation or slate of fuel formulations as complying with this subsection if such fuel or fuels—

(i) comply with the requirements of paragraph (2), and

(ii) achieve equivalent or greater reductions in emissions of ozone forming volatile organic compounds and emissions of toxic air pollutants than are achieved by a reformulated gasoline meeting the applicable requirements of paragraph (3).

**(C) EPA determination of emissions level**

Within 1 year after November 15, 1990, the Administrator shall determine the level of emissions of ozone forming volatile organic compounds and emissions of toxic air pollutants emitted by baseline vehicles when operating on baseline gasoline. For purposes of this subsection, within 1 year after November 15, 1990, the Administrator shall, by rule, determine appropriate measures of, and methodology for, ascertaining the emissions of air pollutants (including calculations, equipment, and testing tolerances).

**(5) Prohibition**

Effective beginning January 1, 1995, each of the following shall be a violation of this subsection:

(A) The sale or dispensing by any person of conventional gasoline to ultimate consumers in any covered area.

(B) The sale or dispensing by any refiner, blender, importer, or marketer of conventional gasoline for resale in any covered area, without (i) segregating such gasoline from reformulated gasoline, and (ii) clearly marking such conventional gasoline as “conventional gasoline, not for sale to ultimate consumer in a covered area”.

Any refiner, blender, importer or marketer who purchases property<sup>6</sup> segregated and marked conventional gasoline, and thereafter

<sup>6</sup> So in original. Probably should be “properly”.

labels, represents, or wholesales such gasoline as reformulated gasoline shall also be in violation of this subsection. The Administrator may impose sampling, testing, and record-keeping requirements upon any refiner, blender, importer, or marketer to prevent violations of this section.

**(6) Opt-in areas**

**(A) Classified areas**

**(i) In general**

Upon the application of the Governor of a State, the Administrator shall apply the prohibition set forth in paragraph (5) in any area in the State classified under subpart 2 of part D of subchapter I as a Marginal, Moderate, Serious, or Severe Area (without regard to whether or not the 1980 population of the area exceeds 250,000). In any such case, the Administrator shall establish an effective date for such prohibition as he deems appropriate, not later than January 1, 1995, or 1 year after such application is received, whichever is later. The Administrator shall publish such application in the Federal Register upon receipt.

**(ii) Effect of insufficient domestic capacity to produce reformulated gasoline**

If the Administrator determines, on the Administrator's own motion or on petition of any person, after consultation with the Secretary of Energy, that there is insufficient domestic capacity to produce gasoline certified under this subsection, the Administrator shall, by rule, extend the effective date of such prohibition in Marginal, Moderate, Serious, or Severe Areas referred to in clause (i) for one additional year, and may, by rule, renew such extension for 2 additional one-year periods. The Administrator shall act on any petition submitted under this subparagraph within 6 months after receipt of the petition. The Administrator shall issue such extensions for areas with a lower ozone classification before issuing any such extension for areas with a higher classification.

**(B) Ozone transport region**

**(i) Application of prohibition**

**(I) In general**

On application of the Governor of a State in the ozone transport region established by section 7511c(a) of this title, the Administrator, not later than 180 days after the date of receipt of the application, shall apply the prohibition specified in paragraph (5) to any area in the State (other than an area classified as a marginal, moderate, serious, or severe ozone nonattainment area under subpart 2 of part D of subchapter I) unless the Administrator determines under clause (iii) that there is insufficient capacity to supply reformulated gasoline.

**(II) Publication of application**

As soon as practicable after the date of receipt of an application under subclause

(I), the Administrator shall publish the application in the Federal Register.

**(ii) Period of applicability**

Under clause (i), the prohibition specified in paragraph (5) shall apply in a State—

(I) commencing as soon as practicable but not later than 2 years after the date of approval by the Administrator of the application of the Governor of the State; and

(II) ending not earlier than 4 years after the commencement date determined under subclause (I).

**(iii) Extension of commencement date based on insufficient capacity**

**(I) In general**

If, after receipt of an application from a Governor of a State under clause (i), the Administrator determines, on the Administrator's own motion or on petition of any person, after consultation with the Secretary of Energy, that there is insufficient capacity to supply reformulated gasoline, the Administrator, by regulation—

(aa) shall extend the commencement date with respect to the State under clause (ii)(I) for not more than 1 year; and

(bb) may renew the extension under item (aa) for 2 additional periods, each of which shall not exceed 1 year.

**(II) Deadline for action on petitions**

The Administrator shall act on any petition submitted under subclause (I) not later than 180 days after the date of receipt of the petition.

**(7) Credits**

(A) The regulations promulgated under this subsection shall provide for the granting of an appropriate amount of credits to a person who refines, blends, or imports and certifies a gasoline or slate of gasoline that—

(i) has an aromatic hydrocarbon content (by volume) that is less than the maximum aromatic hydrocarbon content required to comply with paragraph (3); or

(ii) has a benzene content (by volume) that is less than the maximum benzene content specified in paragraph (2).

(B) The regulations described in subparagraph (A) shall also provide that a person who is granted credits may use such credits, or transfer all or a portion of such credits to another person for use within the same non-attainment area, for the purpose of complying with this subsection.

(C) The regulations promulgated under subparagraphs (A) and (B) shall ensure the enforcement of the requirements for the issuance, application, and transfer of the credits. Such regulations shall prohibit the granting or transfer of such credits for use with respect to any gasoline in a nonattainment area, to the extent the use of such credits would result in any of the following:

(i) An average gasoline aromatic hydrocarbon content (by volume) for the non-

attainment (taking into account all gasoline sold for use in conventional gasoline-fueled vehicles in the nonattainment area) higher than the average fuel aromatic hydrocarbon content (by volume) that would occur in the absence of using any such credits.

(ii) An average benzene content (by volume) for the nonattainment area (taking into account all gasoline sold for use in conventional gasoline-fueled vehicles in the nonattainment area) higher than the average benzene content (by volume) that would occur in the absence of using any such credits.

#### **(8) Anti-dumping rules**

##### **(A) In general**

Within 1 year after November 15, 1990, the Administrator shall promulgate regulations applicable to each refiner, blender, or importer of gasoline ensuring that gasoline sold or introduced into commerce by such refiner, blender, or importer (other than reformulated gasoline subject to the requirements of paragraph (1)) does not result in average per gallon emissions (measured on a mass basis) of (i) volatile organic compounds, (ii) oxides of nitrogen, (iii) carbon monoxide, and (iv) toxic air pollutants in excess of such emissions of such pollutants attributable to gasoline sold or introduced into commerce in calendar year 1990 by that refiner, blender, or importer. Such regulations shall take effect beginning January 1, 1995.

##### **(B) Adjustments**

In evaluating compliance with the requirements of subparagraph (A), the Administrator shall make appropriate adjustments to insure that no credit is provided for improvement in motor vehicle emissions control in motor vehicles sold after the calendar year 1990.

##### **(C) Compliance determined for each pollutant independently**

In determining whether there is an increase in emissions in violation of the prohibition contained in subparagraph (A) the Administrator shall consider an increase in each air pollutant referred to in clauses (i) through (iv) as a separate violation of such prohibition, except that the Administrator shall promulgate regulations to provide that any increase in emissions of oxides of nitrogen resulting from adding oxygenates to gasoline may be offset by an equivalent or greater reduction (on a mass basis) in emissions of volatile organic compounds, carbon monoxide, or toxic air pollutants, or any combination of the foregoing.

##### **(D) Compliance period**

The Administrator shall promulgate an appropriate compliance period or appropriate compliance periods to be used for assessing compliance with the prohibition contained in subparagraph (A).

##### **(E) Baseline for determining compliance**

If the Administrator determines that no adequate and reliable data exists regarding

the composition of gasoline sold or introduced into commerce by a refiner, blender, or importer in calendar year 1990, for such refiner, blender, or importer, baseline gasoline shall be substituted for such 1990 gasoline in determining compliance with subparagraph (A).

#### **(9) Emissions from entire vehicle**

In applying the requirements of this subsection, the Administrator shall take into account emissions from the entire motor vehicle, including evaporative, running, refueling, and exhaust emissions.

#### **(10) Definitions**

For purposes of this subsection—

##### **(A) Baseline vehicles**

The term “baseline vehicles” mean representative model year 1990 vehicles.

##### **(B) Baseline gasoline**

###### **(i) Summertime**

The term “baseline gasoline” means in the case of gasoline sold during the high ozone period (as defined by the Administrator) a gasoline which meets the following specifications:

##### **BASELINE GASOLINE FUEL PROPERTIES**

API Gravity .....	57.4
Sulfur, ppm .....	339
Benzene, % .....	1.53
RVP, psi .....	8.7
Octane, R+M/2 .....	87.3
IBP, F .....	91
10%, F .....	128
50%, F .....	218
90%, F .....	330
End Point, F .....	415
Aromatics, % .....	32.0
Olefins, % .....	9.2
Saturates, % .....	58.8

###### **(ii) Wintertime**

The Administrator shall establish the specifications of “baseline gasoline” for gasoline sold at times other than the high ozone period (as defined by the Administrator). Such specifications shall be the specifications of 1990 industry average gasoline sold during such period.

##### **(C) Toxic air pollutants**

The term “toxic air pollutants” means the aggregate emissions of the following:

Benzene  
1,3 Butadiene  
Polycyclic organic matter (POM)  
Acetaldehyde  
Formaldehyde.

##### **(D) Covered area**

The 9 ozone nonattainment areas having a 1980 population in excess of 250,000 and having the highest ozone design value during the period 1987 through 1989 shall be “covered areas” for purposes of this subsection. Effective one year after the reclassification of any ozone nonattainment area as a Severe ozone nonattainment area under section 7511(b) of this title, such Severe area shall also be a “covered area” for purposes of this subsection.

**(E) Reformulated gasoline**

The term “reformulated gasoline” means any gasoline which is certified by the Administrator under this section as complying with this subsection.

**(F) Conventional gasoline**

The term “conventional gasoline” means any gasoline which does not meet specifications set by a certification under this subsection.

**(I) Detergents**

Effective beginning January 1, 1995, no person may sell or dispense to an ultimate consumer in the United States, and no refiner or marketer may directly or indirectly sell or dispense to persons who sell or dispense to ultimate consumers in the United States any gasoline which does not contain additives to prevent the accumulation of deposits in engines or fuel supply systems. Not later than 2 years after November 15, 1990, the Administrator shall promulgate a rule establishing specifications for such additives.

**(m) Oxygenated fuels****(1) Plan revisions for CO nonattainment areas**

(A) Each State in which there is located all or part of an area which is designated under subchapter I as a nonattainment area for carbon monoxide and which has a carbon monoxide design value of 9.5 parts per million (ppm) or above based on data for the 2-year period of 1988 and 1989 and calculated according to the most recent interpretation methodology issued by the Administrator prior to November 15, 1990, shall submit to the Administrator a State implementation plan revision under section 7410 of this title and part D of subchapter I for such area which shall contain the provisions specified under this subsection regarding oxygenated gasoline.

(B) A plan revision which contains such provisions shall also be submitted by each State in which there is located any area which, for any 2-year period after 1989 has a carbon monoxide design value of 9.5 ppm or above. The revision shall be submitted within 18 months after such 2-year period.

**(2) Oxygenated gasoline in CO nonattainment areas**

Each plan revision under this subsection shall contain provisions to require that any gasoline sold, or dispensed, to the ultimate consumer in the carbon monoxide nonattainment area or sold or dispensed directly or indirectly by fuel refiners or marketers to persons who sell or dispense to ultimate consumers, in the larger of—

(A) the Consolidated Metropolitan Statistical Area (CMSA) in which the area is located, or

(B) if the area is not located in a CMSA, the Metropolitan Statistical Area in which the area is located,

be blended, during the portion of the year in which the area is prone to high ambient concentrations of carbon monoxide to contain not less than 2.7 percent oxygen by weight (subject

to a testing tolerance established by the Administrator). The portion of the year in which the area is prone to high ambient concentrations of carbon monoxide shall be as determined by the Administrator, but shall not be less than 4 months. At the request of a State with respect to any area designated as nonattainment for carbon monoxide, the Administrator may reduce the period specified in the preceding sentence if the State can demonstrate that because of meteorological conditions, a reduced period will assure that there will be no exceedances of the carbon monoxide standard outside of such reduced period. For areas with a carbon monoxide design value of 9.5 ppm or more of<sup>7</sup> November 15, 1990, the revision shall provide that such requirement shall take effect no later than November 1, 1992 (or at such other date during 1992 as the Administrator establishes under the preceding provisions of this paragraph). For other areas, the revision shall provide that such requirement shall take effect no later than November 1 of the third year after the last year of the applicable 2-year period referred to in paragraph (1) (or at such other date during such third year as the Administrator establishes under the preceding provisions of this paragraph) and shall include a program for implementation and enforcement of the requirement consistent with guidance to be issued by the Administrator.

**(3) Waivers**

(A) The Administrator shall waive, in whole or in part, the requirements of paragraph (2) upon a demonstration by the State to the satisfaction of the Administrator that the use of oxygenated gasoline would prevent or interfere with the attainment by the area of a national primary ambient air quality standard (or a State or local ambient air quality standard) for any air pollutant other than carbon monoxide.

(B) The Administrator shall, upon demonstration by the State satisfactory to the Administrator, waive the requirement of paragraph (2) where the Administrator determines that mobile sources of carbon monoxide do not contribute significantly to carbon monoxide levels in an area.

(C)(i) Any person may petition the Administrator to make a finding that there is, or is likely to be, for any area, an inadequate domestic supply of, or distribution capacity for, oxygenated gasoline meeting the requirements of paragraph (2) or fuel additives (oxygenates) necessary to meet such requirements. The Administrator shall act on such petition within 6 months after receipt of the petition.

(ii) If the Administrator determines, in response to a petition under clause (i), that there is an inadequate supply or capacity described in clause (i), the Administrator shall delay the effective date of paragraph (2) for 1 year. Upon petition, the Administrator may extend such effective date for one additional year. No partial delay or lesser waiver may be granted under this clause.

<sup>7</sup> So in original. Probably should be “as of”.



(iii) In granting waivers under this subparagraph the Administrator shall consider distribution capacity separately from the adequacy of domestic supply and shall grant such waivers in such manner as will assure that, if supplies of oxygenated gasoline are limited, areas having the highest design value for carbon monoxide will have a priority in obtaining oxygenated gasoline which meets the requirements of paragraph (2).

(iv) As used in this subparagraph, the term distribution capacity includes capacity for transportation, storage, and blending.

#### **(4) Fuel dispensing systems**

Any person selling oxygenated gasoline at retail pursuant to this subsection shall be required under regulations promulgated by the Administrator to label the fuel dispensing system with a notice that the gasoline is oxygenated and will reduce the carbon monoxide emissions from the motor vehicle.

#### **(5) Guidelines for credit**

The Administrator shall promulgate guidelines, within 9 months after November 15, 1990, allowing the use of marketable oxygen credits from gasolines during that portion of the year specified in paragraph (2) with higher oxygen content than required to offset the sale or use of gasoline with a lower oxygen content than required. No credits may be transferred between nonattainment areas.

#### **(6) Attainment areas**

Nothing in this subsection shall be interpreted as requiring an oxygenated gasoline program in an area which is in attainment for carbon monoxide, except that in a carbon monoxide nonattainment area which is redesignated as attainment for carbon monoxide, the requirements of this subsection shall remain in effect to the extent such program is necessary to maintain such standard thereafter in the area.

#### **(7) Failure to attain CO standard**

If the Administrator determines under section 7512(b)(2) of this title that the national primary ambient air quality standard for carbon monoxide has not been attained in a Serious Area by the applicable attainment date, the State shall submit a plan revision for the area within 9 months after the date of such determination. The plan revision shall provide that the minimum oxygen content of gasoline referred to in paragraph (2) shall be 3.1 percent by weight unless such requirement is waived in accordance with the provisions of this subsection.

#### **(n) Prohibition on leaded gasoline for highway use**

After December 31, 1995, it shall be unlawful for any person to sell, offer for sale, supply, offer for supply, dispense, transport, or introduce into commerce, for use as fuel in any motor vehicle (as defined in section 7554(2)<sup>8</sup> of this title) any gasoline which contains lead or lead additives.

#### **(o) Renewable fuel program**

##### **(1) Definitions**

In this section:

#### **(A) Additional renewable fuel**

The term “additional renewable fuel” means fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in home heating oil or jet fuel.

#### **(B) Advanced biofuel**

##### **(i) In general**

The term “advanced biofuel” means renewable fuel, other than ethanol derived from corn starch, that has lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, that are at least 50 percent less than baseline lifecycle greenhouse gas emissions.

##### **(ii) Inclusions**

The types of fuels eligible for consideration as “advanced biofuel” may include any of the following:

(I) Ethanol derived from cellulose, hemicellulose, or lignin.

(II) Ethanol derived from sugar or starch (other than corn starch).

(III) Ethanol derived from waste material, including crop residue, other vegetative waste material, animal waste, and food waste and yard waste.

(IV) Biomass-based diesel.

(V) Biogas (including landfill gas and sewage waste treatment gas) produced through the conversion of organic matter from renewable biomass.

(VI) Butanol or other alcohols produced through the conversion of organic matter from renewable biomass.

(VII) Other fuel derived from cellulosic biomass.

#### **(C) Baseline lifecycle greenhouse gas emissions**

The term “baseline lifecycle greenhouse gas emissions” means the average lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, for gasoline or diesel (whichever is being replaced by the renewable fuel) sold or distributed as transportation fuel in 2005.

#### **(D) Biomass-based diesel**

The term “biomass-based diesel” means renewable fuel that is biodiesel as defined in section 13220(f) of this title and that has lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, that are at least 50 percent less than the baseline lifecycle greenhouse gas emissions. Notwithstanding the preceding sentence, renewable fuel derived from co-processing biomass with a petroleum feedstock shall be advanced biofuel if it meets the requirements of subparagraph (B), but is not biomass-based diesel.

#### **(E) Cellulosic biofuel**

The term “cellulosic biofuel” means renewable fuel derived from any cellulose, hemicellulose, or lignin that is derived from

<sup>8</sup> So in original. Probably should be section “7550(2)”.

renewable biomass and that has lifecycle greenhouse gas emissions, as determined by the Administrator, that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions.

**(F) Conventional biofuel**

The term “conventional biofuel” means renewable fuel that is ethanol derived from corn starch.

**(G) Greenhouse gas**

The term “greenhouse gas” means carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons,<sup>9</sup> sulfur hexafluoride. The Administrator may include any other anthropogenically-emitted gas that is determined by the Administrator, after notice and comment, to contribute to global warming.

**(H) Lifecycle greenhouse gas emissions**

The term “lifecycle greenhouse gas emissions” means the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Administrator, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential.

**(I) Renewable biomass**

The term “renewable biomass” means each of the following:

(i) Planted crops and crop residue harvested from agricultural land cleared or cultivated at any time prior to December 19, 2007, that is either actively managed or fallow, and nonforested.

(ii) Planted trees and tree residue from actively managed tree plantations on non-federal<sup>10</sup> land cleared at any time prior to December 19, 2007, including land belonging to an Indian tribe or an Indian individual, that is held in trust by the United States or subject to a restriction against alienation imposed by the United States.

(iii) Animal waste material and animal byproducts.

(iv) Slash and pre-commercial thinnings that are from non-federal<sup>10</sup> forestlands, including forestlands belonging to an Indian tribe or an Indian individual, that are held in trust by the United States or subject to a restriction against alienation imposed by the United States, but not forests or forestlands that are ecological communities with a global or State ranking of critically imperiled, imperiled, or rare pursuant to a State Natural Heritage Program, old growth forest, or late successional forest.

<sup>9</sup> So in original. The word “and” probably should appear.

<sup>10</sup> So in original. Probably should be “non-Federal”.

(v) Biomass obtained from the immediate vicinity of buildings and other areas regularly occupied by people, or of public infrastructure, at risk from wildfire.

(vi) Algae.

(vii) Separated yard waste or food waste, including recycled cooking and trap grease.

**(J) Renewable fuel**

The term “renewable fuel” means fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in a transportation fuel.

**(K) Small refinery**

The term “small refinery” means a refinery for which the average aggregate daily crude oil throughput for a calendar year (as determined by dividing the aggregate throughput for the calendar year by the number of days in the calendar year) does not exceed 75,000 barrels.

**(L) Transportation fuel**

The term “transportation fuel” means fuel for use in motor vehicles, motor vehicle engines, nonroad vehicles, or nonroad engines (except for ocean-going vessels).

**(2) Renewable fuel program**

**(A) Regulations**

**(i) In general**

Not later than 1 year after August 8, 2005, the Administrator shall promulgate regulations to ensure that gasoline sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains the applicable volume of renewable fuel determined in accordance with subparagraph (B). Not later than 1 year after December 19, 2007, the Administrator shall revise the regulations under this paragraph to ensure that transportation fuel sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains at least the applicable volume of renewable fuel, advanced biofuel, cellulosic biofuel, and biomass-based diesel, determined in accordance with subparagraph (B) and, in the case of any such renewable fuel produced from new facilities that commence construction after December 19, 2007, achieves at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions.

**(ii) Noncontiguous State opt-in**

**(I) In general**

On the petition of a noncontiguous State or territory, the Administrator may allow the renewable fuel program established under this subsection to apply in the noncontiguous State or territory at the same time or any time after the Administrator promulgates regulations under this subparagraph.

**(II) Other actions**

In carrying out this clause, the Administrator may—

- (aa) issue or revise regulations under this paragraph;
- (bb) establish applicable percentages under paragraph (3);
- (cc) provide for the generation of credits under paragraph (5); and
- (dd) take such other actions as are necessary to allow for the application of the renewable fuels program in a noncontiguous State or territory.

**(iii) Provisions of regulations**

Regardless of the date of promulgation, the regulations promulgated under clause (i)—

- (I) shall contain compliance provisions applicable to refineries, blenders, distributors, and importers, as appropriate, to ensure that the requirements of this paragraph are met; but
- (II) shall not—
  - (aa) restrict geographic areas in which renewable fuel may be used; or
  - (bb) impose any per-gallon obligation for the use of renewable fuel.

**(iv) Requirement in case of failure to promulgate regulations**

If the Administrator does not promulgate regulations under clause (i), the percentage of renewable fuel in gasoline sold or dispensed to consumers in the United States, on a volume basis, shall be 2.78 percent for calendar year 2006.

**(B) Applicable volumes**

**(i) Calendar years after 2005**

**(I) Renewable fuel**

For the purpose of subparagraph (A), the applicable volume of renewable fuel for the calendar years 2006 through 2022 shall be determined in accordance with the following table:

Calendar year:	Applicable volume of renewable fuel (in billions of gallons):
2006 .....	4.0
2007 .....	4.7
2008 .....	9.0
2009 .....	11.1
2010 .....	12.95
2011 .....	13.95
2012 .....	15.2
2013 .....	16.55
2014 .....	18.15
2015 .....	20.5
2016 .....	22.25
2017 .....	24.0
2018 .....	26.0
2019 .....	28.0
2020 .....	30.0
2021 .....	33.0
2022 .....	36.0

**(II) Advanced biofuel**

For the purpose of subparagraph (A), of the volume of renewable fuel required under subclause (I), the applicable volume of advanced biofuel for the calendar years 2009 through 2022 shall be deter-

mined in accordance with the following table:

Calendar year:	Applicable volume of advanced biofuel (in billions of gallons):
2009 .....	0.6
2010 .....	0.95
2011 .....	1.35
2012 .....	2.0
2013 .....	2.75
2014 .....	3.75
2015 .....	5.5
2016 .....	7.25
2017 .....	9.0
2018 .....	11.0
2019 .....	13.0
2020 .....	15.0
2021 .....	18.0
2022 .....	21.0

**(III) Cellulosic biofuel**

For the purpose of subparagraph (A), of the volume of advanced biofuel required under subclause (II), the applicable volume of cellulosic biofuel for the calendar years 2010 through 2022 shall be determined in accordance with the following table:

Calendar year:	Applicable volume of cellulosic biofuel (in billions of gallons):
2010 .....	0.1
2011 .....	0.25
2012 .....	0.5
2013 .....	1.0
2014 .....	1.75
2015 .....	3.0
2016 .....	4.25
2017 .....	5.5
2018 .....	7.0
2019 .....	8.5
2020 .....	10.5
2021 .....	13.5
2022 .....	16.0

**(IV) Biomass-based diesel**

For the purpose of subparagraph (A), of the volume of advanced biofuel required under subclause (II), the applicable volume of biomass-based diesel for the calendar years 2009 through 2012 shall be determined in accordance with the following table:

Calendar year:	Applicable volume of biomass-based diesel (in billions of gallons):
2009 .....	0.5
2010 .....	0.65
2011 .....	0.80
2012 .....	1.0

**(ii) Other calendar years**

For the purposes of subparagraph (A), the applicable volumes of each fuel specified in the tables in clause (i) for calendar

years after the calendar years specified in the tables shall be determined by the Administrator, in coordination with the Secretary of Energy and the Secretary of Agriculture, based on a review of the implementation of the program during calendar years specified in the tables, and an analysis of—

(I) the impact of the production and use of renewable fuels on the environment, including on air quality, climate change, conversion of wetlands, ecosystems, wildlife habitat, water quality, and water supply;

(II) the impact of renewable fuels on the energy security of the United States;

(III) the expected annual rate of future commercial production of renewable fuels, including advanced biofuels in each category (cellulosic biofuel and biomass-based diesel);

(IV) the impact of renewable fuels on the infrastructure of the United States, including deliverability of materials, goods, and products other than renewable fuel, and the sufficiency of infrastructure to deliver and use renewable fuel;

(V) the impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods; and

(VI) the impact of the use of renewable fuels on other factors, including job creation, the price and supply of agricultural commodities, rural economic development, and food prices.

The Administrator shall promulgate rules establishing the applicable volumes under this clause no later than 14 months before the first year for which such applicable volume will apply.

**(iii) Applicable volume of advanced biofuel**

For the purpose of making the determinations in clause (ii), for each calendar year, the applicable volume of advanced biofuel shall be at least the same percentage of the applicable volume of renewable fuel as in calendar year 2022.

**(iv) Applicable volume of cellulosic biofuel**

For the purpose of making the determinations in clause (ii), for each calendar year, the applicable volume of cellulosic biofuel established by the Administrator shall be based on the assumption that the Administrator will not need to issue a waiver for such years under paragraph (7)(D).

**(v) Minimum applicable volume of biomass-based diesel**

For the purpose of making the determinations in clause (ii), the applicable volume of biomass-based diesel shall not be less than the applicable volume listed in clause (i)(IV) for calendar year 2012.

**(3) Applicable percentages**

**(A) Provision of estimate of volumes of gasoline sales**

Not later than October 31 of each of calendar years 2005 through 2021, the Adminis-

trator of the Energy Information Administration shall provide to the Administrator of the Environmental Protection Agency an estimate, with respect to the following calendar year, of the volumes of transportation fuel, biomass-based diesel, and cellulosic biofuel projected to be sold or introduced into commerce in the United States.

**(B) Determination of applicable percentages**

**(i) In general**

Not later than November 30 of each of calendar years 2005 through 2021, based on the estimate provided under subparagraph (A), the Administrator of the Environmental Protection Agency shall determine and publish in the Federal Register, with respect to the following calendar year, the renewable fuel obligation that ensures that the requirements of paragraph (2) are met.

**(ii) Required elements**

The renewable fuel obligation determined for a calendar year under clause (i) shall—

(I) be applicable to refineries, blenders, and importers, as appropriate;

(II) be expressed in terms of a volume percentage of transportation fuel sold or introduced into commerce in the United States; and

(III) subject to subparagraph (C)(i), consist of a single applicable percentage that applies to all categories of persons specified in subclause (I).

**(C) Adjustments**

In determining the applicable percentage for a calendar year, the Administrator shall make adjustments—

(i) to prevent the imposition of redundant obligations on any person specified in subparagraph (B)(ii)(I); and

(ii) to account for the use of renewable fuel during the previous calendar year by small refineries that are exempt under paragraph (9).

**(4) Modification of greenhouse gas reduction percentages**

**(A) In general**

The Administrator may, in the regulations under the last sentence of paragraph (2)(A)(i), adjust the 20 percent, 50 percent, and 60 percent reductions in lifecycle greenhouse gas emissions specified in paragraphs (2)(A)(i) (relating to renewable fuel), (1)(D) (relating to biomass-based diesel), (1)(B)(i) (relating to advanced biofuel), and (1)(E) (relating to cellulosic biofuel) to a lower percentage. For the 50 and 60 percent reductions, the Administrator may make such an adjustment only if he determines that generally such reduction is not commercially feasible for fuels made using a variety of feedstocks, technologies, and processes to meet the applicable reduction.

**(B) Amount of adjustment**

In promulgating regulations under this paragraph, the specified 50 percent reduction



in greenhouse gas emissions from advanced biofuel and in biomass-based diesel may not be reduced below 40 percent. The specified 20 percent reduction in greenhouse gas emissions from renewable fuel may not be reduced below 10 percent, and the specified 60 percent reduction in greenhouse gas emissions from cellulosic biofuel may not be reduced below 50 percent.

**(C) Adjusted reduction levels**

An adjustment under this paragraph to a percent less than the specified 20 percent greenhouse gas reduction for renewable fuel shall be the minimum possible adjustment, and the adjusted greenhouse gas reduction shall be established by the Administrator at the maximum achievable level, taking cost in consideration, for natural gas fired corn-based ethanol plants, allowing for the use of a variety of technologies and processes. An adjustment in the 50 or 60 percent greenhouse gas levels shall be the minimum possible adjustment for the fuel or fuels concerned, and the adjusted greenhouse gas reduction shall be established at the maximum achievable level, taking cost in consideration, allowing for the use of a variety of feedstocks, technologies, and processes.

**(D) 5-year review**

Whenever the Administrator makes any adjustment under this paragraph, not later than 5 years thereafter he shall review and revise (based upon the same criteria and standards as required for the initial adjustment) the regulations establishing the adjusted level.

**(E) Subsequent adjustments**

After the Administrator has promulgated a final rule under the last sentence of paragraph (2)(A)(i) with respect to the method of determining lifecycle greenhouse gas emissions, except as provided in subparagraph (D), the Administrator may not adjust the percent greenhouse gas reduction levels unless he determines that there has been a significant change in the analytical methodology used for determining the lifecycle greenhouse gas emissions. If he makes such determination, he may adjust the 20, 50, or 60 percent reduction levels through rule-making using the criteria and standards set forth in this paragraph.

**(F) Limit on upward adjustments**

If, under subparagraph (D) or (E), the Administrator revises a percent level adjusted as provided in subparagraphs (A), (B), and (C) to a higher percent, such higher percent may not exceed the applicable percent specified in paragraph (2)(A)(i), (1)(D), (1)(B)(i), or (1)(E).

**(G) Applicability of adjustments**

If the Administrator adjusts, or revises, a percent level referred to in this paragraph or makes a change in the analytical methodology used for determining the lifecycle greenhouse gas emissions, such adjustment, revision, or change (or any combination thereof) shall only apply to renewable fuel

from new facilities that commence construction after the effective date of such adjustment, revision, or change.

**(5) Credit program**

**(A) In general**

The regulations promulgated under paragraph (2)(A) shall provide—

(i) for the generation of an appropriate amount of credits by any person that refines, blends, or imports gasoline that contains a quantity of renewable fuel that is greater than the quantity required under paragraph (2);

(ii) for the generation of an appropriate amount of credits for biodiesel; and

(iii) for the generation of credits by small refineries in accordance with paragraph (9)(C).

**(B) Use of credits**

A person that generates credits under subparagraph (A) may use the credits, or transfer all or a portion of the credits to another person, for the purpose of complying with paragraph (2).

**(C) Duration of credits**

A credit generated under this paragraph shall be valid to show compliance for the 12 months as of the date of generation.

**(D) Inability to generate or purchase sufficient credits**

The regulations promulgated under paragraph (2)(A) shall include provisions allowing any person that is unable to generate or purchase sufficient credits to meet the requirements of paragraph (2) to carry forward a renewable fuel deficit on condition that the person, in the calendar year following the year in which the renewable fuel deficit is created—

(i) achieves compliance with the renewable fuel requirement under paragraph (2); and

(ii) generates or purchases additional renewable fuel credits to offset the renewable fuel deficit of the previous year.

**(E) Credits for additional renewable fuel**

The Administrator may issue regulations providing: (i) for the generation of an appropriate amount of credits by any person that refines, blends, or imports additional renewable fuels specified by the Administrator; and (ii) for the use of such credits by the generator, or the transfer of all or a portion of the credits to another person, for the purpose of complying with paragraph (2).

**(6) Seasonal variations in renewable fuel use**

**(A) Study**

For each of calendar years 2006 through 2012, the Administrator of the Energy Information Administration shall conduct a study of renewable fuel blending to determine whether there are excessive seasonal variations in the use of renewable fuel.

**(B) Regulation of excessive seasonal variations**

If, for any calendar year, the Administrator of the Energy Information Adminis-

tration, based on the study under subparagraph (A), makes the determinations specified in subparagraph (C), the Administrator of the Environmental Protection Agency shall promulgate regulations to ensure that 25 percent or more of the quantity of renewable fuel necessary to meet the requirements of paragraph (2) is used during each of the 2 periods specified in subparagraph (D) of each subsequent calendar year.

**(C) Determinations**

The determinations referred to in subparagraph (B) are that—

- (i) less than 25 percent of the quantity of renewable fuel necessary to meet the requirements of paragraph (2) has been used during 1 of the 2 periods specified in subparagraph (D) of the calendar year;
- (ii) a pattern of excessive seasonal variation described in clause (i) will continue in subsequent calendar years; and
- (iii) promulgating regulations or other requirements to impose a 25 percent or more seasonal use of renewable fuels will not prevent or interfere with the attainment of national ambient air quality standards or significantly increase the price of motor fuels to the consumer.

**(D) Periods**

The 2 periods referred to in this paragraph are—

- (i) April through September; and
- (ii) January through March and October through December.

**(E) Exclusion**

Renewable fuel blended or consumed in calendar year 2006 in a State that has received a waiver under section 7543(b) of this title shall not be included in the study under subparagraph (A).

**(F) State exemption from seasonality requirements**

Notwithstanding any other provision of law, the seasonality requirement relating to renewable fuel use established by this paragraph shall not apply to any State that has received a waiver under section 7543(b) of this title or any State dependent on refineries in such State for gasoline supplies.

**(7) Waivers**

**(A) In general**

The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, may waive the requirements of paragraph (2) in whole or in part on petition by one or more States, by any person subject to the requirements of this subsection, or by the Administrator on his own motion by reducing the national quantity of renewable fuel required under paragraph (2)—

- (i) based on a determination by the Administrator, after public notice and opportunity for comment, that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States; or

- (ii) based on a determination by the Administrator, after public notice and opportunity for comment, that there is an inadequate domestic supply.

**(B) Petitions for waivers**

The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, shall approve or disapprove a petition for a waiver of the requirements of paragraph (2) within 90 days after the date on which the petition is received by the Administrator.

**(C) Termination of waivers**

A waiver granted under subparagraph (A) shall terminate after 1 year, but may be renewed by the Administrator after consultation with the Secretary of Agriculture and the Secretary of Energy.

**(D) Cellulosic biofuel**

(i) For any calendar year for which the projected volume of cellulosic biofuel production is less than the minimum applicable volume established under paragraph (2)(B), as determined by the Administrator based on the estimate provided under paragraph (3)(A), not later than November 30 of the preceding calendar year, the Administrator shall reduce the applicable volume of cellulosic biofuel required under paragraph (2)(B) to the projected volume available during that calendar year. For any calendar year in which the Administrator makes such a reduction, the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels requirement established under paragraph (2)(B) by the same or a lesser volume.

(ii) Whenever the Administrator reduces the minimum cellulosic biofuel volume under this subparagraph, the Administrator shall make available for sale cellulosic biofuel credits at the higher of \$0.25 per gallon or the amount by which \$3.00 per gallon exceeds the average wholesale price of a gallon of gasoline in the United States. Such amounts shall be adjusted for inflation by the Administrator for years after 2008.

(iii) Eighteen months after December 19, 2007, the Administrator shall promulgate regulations to govern the issuance of credits under this subparagraph. The regulations shall set forth the method for determining the exact price of credits in the event of a waiver. The price of such credits shall not be changed more frequently than once each quarter. These regulations shall include such provisions, including limiting the credits' uses and useful life, as the Administrator deems appropriate to assist market liquidity and transparency, to provide appropriate certainty for regulated entities and renewable fuel producers, and to limit any potential misuse of cellulosic biofuel credits to reduce the use of other renewable fuels, and for such other purposes as the Administrator determines will help achieve the goals of this subsection. The regulations shall limit the number of cellulosic biofuel credits for any calendar year to the minimum appli-

cable volume (as reduced under this subparagraph) of cellulosic biofuel for that year.

**(E) Biomass-based diesel**

**(i) Market evaluation**

The Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, shall periodically evaluate the impact of the biomass-based diesel requirements established under this paragraph on the price of diesel fuel.

**(ii) Waiver**

If the Administrator determines that there is a significant renewable feedstock disruption or other market circumstances that would make the price of biomass-based diesel fuel increase significantly, the Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, shall issue an order to reduce, for up to a 60-day period, the quantity of biomass-based diesel required under subparagraph (A) by an appropriate quantity that does not exceed 15 percent of the applicable annual requirement for biomass-based diesel. For any calendar year in which the Administrator makes a reduction under this subparagraph, the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels requirement established under paragraph (2)(B) by the same or a lesser volume.

**(iii) Extensions**

If the Administrator determines that the feedstock disruption or circumstances described in clause (ii) is continuing beyond the 60-day period described in clause (ii) or this clause, the Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, may issue an order to reduce, for up to an additional 60-day period, the quantity of biomass-based diesel required under subparagraph (A) by an appropriate quantity that does not exceed an additional 15 percent of the applicable annual requirement for biomass-based diesel.

**(F) Modification of applicable volumes**

For any of the tables in paragraph (2)(B), if the Administrator waives—

- (i) at least 20 percent of the applicable volume requirement set forth in any such table for 2 consecutive years; or
- (ii) at least 50 percent of such volume requirement for a single year,

the Administrator shall promulgate a rule (within 1 year after issuing such waiver) that modifies the applicable volumes set forth in the table concerned for all years following the final year to which the waiver applies, except that no such modification in applicable volumes shall be made for any year before 2016. In promulgating such a rule, the Administrator shall comply with the processes, criteria, and standards set forth in paragraph (2)(B)(ii).

**(8) Study and waiver for initial year of program**

**(A) In general**

Not later than 180 days after August 8, 2005, the Secretary of Energy shall conduct for the Administrator a study assessing whether the renewable fuel requirement under paragraph (2) will likely result in significant adverse impacts on consumers in 2006, on a national, regional, or State basis.

**(B) Required evaluations**

The study shall evaluate renewable fuel—

- (i) supplies and prices;
- (ii) blendstock supplies; and
- (iii) supply and distribution system capabilities.

**(C) Recommendations by the Secretary**

Based on the results of the study, the Secretary of Energy shall make specific recommendations to the Administrator concerning waiver of the requirements of paragraph (2), in whole or in part, to prevent any adverse impacts described in subparagraph (A).

**(D) Waiver**

**(i) In general**

Not later than 270 days after August 8, 2005, the Administrator shall, if and to the extent recommended by the Secretary of Energy under subparagraph (C), waive, in whole or in part, the renewable fuel requirement under paragraph (2) by reducing the national quantity of renewable fuel required under paragraph (2) in calendar year 2006.

**(ii) No effect on waiver authority**

Clause (i) does not limit the authority of the Administrator to waive the requirements of paragraph (2) in whole, or in part, under paragraph (7).

**(9) Small refineries**

**(A) Temporary exemption**

**(i) In general**

The requirements of paragraph (2) shall not apply to small refineries until calendar year 2011.

**(ii) Extension of exemption**

**(I) Study by Secretary of Energy**

Not later than December 31, 2008, the Secretary of Energy shall conduct for the Administrator a study to determine whether compliance with the requirements of paragraph (2) would impose a disproportionate economic hardship on small refineries.

**(II) Extension of exemption**

In the case of a small refinery that the Secretary of Energy determines under subclause (I) would be subject to a disproportionate economic hardship if required to comply with paragraph (2), the Administrator shall extend the exemption under clause (i) for the small refinery for a period of not less than 2 additional years.

**(B) Petitions based on disproportionate economic hardship**

**(i) Extension of exemption**

A small refinery may at any time petition the Administrator for an extension of the exemption under subparagraph (A) for the reason of disproportionate economic hardship.

**(ii) Evaluation of petitions**

In evaluating a petition under clause (i), the Administrator, in consultation with the Secretary of Energy, shall consider the findings of the study under subparagraph (A)(i) and other economic factors.

**(iii) Deadline for action on petitions**

The Administrator shall act on any petition submitted by a small refinery for a hardship exemption not later than 90 days after the date of receipt of the petition.

**(C) Credit program**

If a small refinery notifies the Administrator that the small refinery waives the exemption under subparagraph (A), the regulations promulgated under paragraph (2)(A) shall provide for the generation of credits by the small refinery under paragraph (5) beginning in the calendar year following the date of notification.

**(D) Opt-in for small refineries**

A small refinery shall be subject to the requirements of paragraph (2) if the small refinery notifies the Administrator that the small refinery waives the exemption under subparagraph (A).

**(10) Ethanol market concentration analysis**

**(A) Analysis**

**(i) In general**

Not later than 180 days after August 8, 2005, and annually thereafter, the Federal Trade Commission shall perform a market concentration analysis of the ethanol production industry using the Herfindahl-Hirschman Index to determine whether there is sufficient competition among industry participants to avoid price-setting and other anticompetitive behavior.

**(ii) Scoring**

For the purpose of scoring under clause (i) using the Herfindahl-Hirschman Index, all marketing arrangements among industry participants shall be considered.

**(B) Report**

Not later than December 1, 2005, and annually thereafter, the Federal Trade Commission shall submit to Congress and the Administrator a report on the results of the market concentration analysis performed under subparagraph (A)(i).

**(11) Periodic reviews**

To allow for the appropriate adjustment of the requirements described in subparagraph (B) of paragraph (2), the Administrator shall conduct periodic reviews of—

(A) existing technologies;

(B) the feasibility of achieving compliance with the requirements; and

(C) the impacts of the requirements described in subsection (a)(2)<sup>11</sup> on each individual and entity described in paragraph (2).

**(12) Effect on other provisions**

Nothing in this subsection, or regulations issued pursuant to this subsection, shall affect or be construed to affect the regulatory status of carbon dioxide or any other greenhouse gas, or to expand or limit regulatory authority regarding carbon dioxide or any other greenhouse gas, for purposes of other provisions (including section 7475) of this chapter. The previous sentence shall not affect implementation and enforcement of this subsection.

**(q)<sup>12</sup> Analyses of motor vehicle fuel changes and emissions model**

**(1) Anti-backsliding analysis**

**(A) Draft analysis**

Not later than 4 years after August 8, 2005, the Administrator shall publish for public comment a draft analysis of the changes in emissions of air pollutants and air quality due to the use of motor vehicle fuel and fuel additives resulting from implementation of the amendments made by the Energy Policy Act of 2005.

**(B) Final analysis**

After providing a reasonable opportunity for comment but not later than 5 years after August 8, 2005, the Administrator shall publish the analysis in final form.

**(2) Emissions model**

For the purposes of this section, not later than 4 years after August 8, 2005, the Administrator shall develop and finalize an emissions model that reflects, to the maximum extent practicable, the effects of gasoline characteristics or components on emissions from vehicles in the motor vehicle fleet during calendar year 2007.

**(3) Permeation effects study**

**(A) In general**

Not later than 1 year after August 8, 2005, the Administrator shall conduct a study, and report to Congress the results of the study, on the effects of ethanol content in gasoline on permeation, the process by which fuel molecules migrate through the elastomeric materials (rubber and plastic parts) that make up the fuel and fuel vapor systems of a motor vehicle.

**(B) Evaporative emissions**

The study shall include estimates of the increase in total evaporative emissions likely to result from the use of gasoline with ethanol content in a motor vehicle, and the fleet of motor vehicles, due to permeation.

**(r) Fuel and fuel additive importers and importation**

For the purposes of this section, the term “manufacturer” includes an importer and the term “manufacture” includes importation.

<sup>11</sup> So in original. Subsection (a) does not contain a par. (2).

<sup>12</sup> So in original. No subsec. (p) has been enacted.



**(s) Conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels**

**(1) In general**

The Secretary of Energy may provide grants to merchant producers of cellulosic biomass ethanol, waste-derived ethanol, and approved renewable fuels in the United States to assist the producers in building eligible production facilities described in paragraph (2) for the production of ethanol or approved renewable fuels.

**(2) Eligible production facilities**

A production facility shall be eligible to receive a grant under this subsection if the production facility—

(A) is located in the United States; and

(B) uses cellulosic or renewable biomass or waste-derived feedstocks derived from agricultural residues, wood residues, municipal solid waste, or agricultural byproducts.

**(3) Authorization of appropriations**

There are authorized to be appropriated the following amounts to carry out this subsection:

(A) \$100,000,000 for fiscal year 2006.

(B) \$250,000,000 for fiscal year 2007.

(C) \$400,000,000 for fiscal year 2008.

**(4) Definitions**

For the purposes of this subsection:

(A) The term “approved renewable fuels” are fuels and components of fuels that have been approved by the Department of Energy, as defined in section 13211 of this title, which have been made from renewable biomass.

(B) The term “renewable biomass” is, as defined in Presidential Executive Order 13134, published in the Federal Register on August 16, 1999, any organic matter that is available on a renewable or recurring basis (excluding old-growth timber), including dedicated energy crops and trees, agricultural food and feed crop residues, aquatic plants, animal wastes, wood and wood residues, paper and paper residues, and other vegetative waste materials. Old-growth timber means timber of a forest from the late successional stage of forest development.

**(t) Blending of compliant reformulated gasolines**

**(1) In general**

Notwithstanding subsections (h) and (k) and subject to the limitations in paragraph (2) of this subsection, it shall not be a violation of this part<sup>13</sup> for a gasoline retailer, during any month of the year, to blend at a retail location batches of ethanol-blended and non-ethanol-blended reformulated gasoline, provided that—

(A) each batch of gasoline to be blended has been individually certified as in compliance with subsections (h) and (k) prior to being blended;

(B) the retailer notifies the Administrator prior to such blending, and identifies the exact location of the retail station and the

specific tank in which such blending will take place;

(C) the retailer retains and, as requested by the Administrator or the Administrator's designee, makes available for inspection such certifications accounting for all gasoline at the retail outlet; and

(D) the retailer does not, between June 1 and September 15 of each year, blend a batch of VOC-controlled, or “summer”, gasoline with a batch of non-VOC-controlled, or “winter”, gasoline (as these terms are defined under subsections (h) and (k)).

**(2) Limitations**

**(A) Frequency limitation**

A retailer shall only be permitted to blend batches of compliant reformulated gasoline under this subsection a maximum of two blending periods between May 1 and September 15 of each calendar year.

**(B) Duration of blending period**

Each blending period authorized under subparagraph (A) shall extend for a period of no more than 10 consecutive calendar days.

**(3) Surveys**

A sample of gasoline taken from a retail location that has blended gasoline within the past 30 days and is in compliance with subparagraphs (A), (B), (C), and (D) of paragraph (1) shall not be used in a VOC survey mandated by 40 CFR Part 80.

**(4) State implementation plans**

A State shall be held harmless and shall not be required to revise its State implementation plan under section 7410 of this title to account for the emissions from blended gasoline authorized under paragraph (1).

**(5) Preservation of State law**

Nothing in this subsection shall—

(A) preempt existing State laws or regulations regulating the blending of compliant gasolines; or

(B) prohibit a State from adopting such restrictions in the future.

**(6) Regulations**

The Administrator shall promulgate, after notice and comment, regulations implementing this subsection within 1 year after August 8, 2005.

**(7) Effective date**

This subsection shall become effective 15 months after August 8, 2005, and shall apply to blended batches of reformulated gasoline on or after that date, regardless of whether the implementing regulations required by paragraph (6) have been promulgated by the Administrator by that date.

**(8) Liability**

No person other than the person responsible for blending under this subsection shall be subject to an enforcement action or penalties under subsection (d) solely arising from the blending of compliant reformulated gasolines by the retailers.

**(9) Formulation of gasoline**

This subsection does not grant authority to the Administrator or any State (or any sub-

<sup>13</sup> See References in Text note below.

division thereof) to require reformulation of gasoline at the refinery to adjust for potential or actual emissions increases due to the blending authorized by this subsection.

**(u) Standard specifications for biodiesel**

(1) Unless the American Society for Testing and Materials has adopted a standard for diesel fuel containing 20 percent biodiesel (commonly known as “B20”) within 1 year after December 19, 2007, the Administrator shall initiate a rule-making to establish a uniform per gallon fuel standard for such fuel and designate an identification number so that vehicle manufacturers are able to design engines to use fuel meeting such standard.

(2) Unless the American Society for Testing and Materials has adopted a standard for diesel fuel containing 5 percent biodiesel (commonly known as “B5”) within 1 year after December 19, 2007, the Administrator shall initiate a rule-making to establish a uniform per gallon fuel standard for such fuel and designate an identification so that vehicle manufacturers are able to design engines to use fuel meeting such standard.

(3) Whenever the Administrator is required to initiate a rulemaking under paragraph (1) or (2), the Administrator shall promulgate a final rule within 18 months after December 19, 2007.

(4) Not later than 180 days after December 19, 2007, the Administrator shall establish an annual inspection and enforcement program to ensure that diesel fuel containing biodiesel sold or distributed in interstate commerce meets the standards established under regulations under this section, including testing and certification for compliance with applicable standards of the American Society for Testing and Materials. There are authorized to be appropriated to carry out the inspection and enforcement program under this paragraph \$3,000,000 for each of fiscal years 2008 through 2010.

(5) For purposes of this subsection, the term “biodiesel” has the meaning provided by section 13220(f) of this title.

**(v) Prevention of air quality deterioration**

**(1) Study**

**(A) In general**

Not later than 18 months after December 19, 2007, the Administrator shall complete a study to determine whether the renewable fuel volumes required by this section will adversely impact air quality as a result of changes in vehicle and engine emissions of air pollutants regulated under this chapter.

**(B) Considerations**

The study shall include consideration of—

- (i) different blend levels, types of renewable fuels, and available vehicle technologies; and
- (ii) appropriate national, regional, and local air quality control measures.

**(2) Regulations**

Not later than 3 years after December 19, 2007, the Administrator shall—

- (A) promulgate fuel regulations to implement appropriate measures to mitigate, to the greatest extent achievable, considering

the results of the study under paragraph (1), any adverse impacts on air quality, as the result of the renewable volumes required by this section; or

- (B) make a determination that no such measures are necessary.

(July 14, 1955, ch. 360, title II, §211, formerly §210, as added Pub. L. 90-148, §2, Nov. 21, 1967, 81 Stat. 502; renumbered and amended Pub. L. 91-604, §§8(a), 9(a), Dec. 31, 1970, 84 Stat. 1694, 1698; Pub. L. 92-157, title III, §302(d), (e), Nov. 18, 1971, 85 Stat. 464; Pub. L. 95-95, title II, §§222, 223, title IV, §401(e), Aug. 7, 1977, 91 Stat. 762, 764, 791; Pub. L. 95-190, §14(a)(73), (74), Nov. 16, 1977, 91 Stat. 1403, 1404; Pub. L. 101-549, title II, §§212-221, 228(d), Nov. 15, 1990, 104 Stat. 2488-2500, 2510; Pub. L. 109-58, title XV, §§1501(a)-(c), 1504(a)(1), (b), 1505-1507, 1512, 1513, 1541(a), (b), Aug. 8, 2005, 119 Stat. 1067-1074, 1076, 1077, 1080, 1081, 1088, 1089, 1106, 1107; Pub. L. 110-140, title II, §§201, 202, 203(f), 208, 209, 210(b), 247, 251, Dec. 19, 2007, 121 Stat. 1519, 1521, 1529, 1531, 1532, 1547, 1548.)

**Editorial Notes**

**REFERENCES IN TEXT**

August 8, 2005, referred to in subsec. (c)(4)(C)(v)(II), was in the original “enactment”, which was translated as meaning the date of enactment of Pub. L. 109-58, which enacted subsec. (c)(4)(C)(v), to reflect the probable intent of Congress.

Section 7521(l) of this title, referred to in subsec. (k)(1)(B)(vi), was in the original “section 202(1) of the Clean Air Act”, which was translated as meaning section 202(l) of the Clean Air Act, to reflect the probable intent of Congress.

The Energy Policy Act of 2005, referred to in subsec. (q)(1)(A), is Pub. L. 109-58, Aug. 8, 2005, 119 Stat. 594. For complete classification of this Act to the Code, see Short Title note set out under section 15801 of this title and Tables.

Executive Order 13134, referred to in subsec. (s)(4)(B), which was set out as a note under section 8601 of Title 7, Agriculture, was revoked by Ex. Ord. No. 13423, §11(a)(iii), Jan. 24, 2007, 72 F.R. 3923.

This part, referred to in subsec. (t)(1), was in the original “this subtitle” which was translated as “this part”, meaning part A of title II of act July 14, 1955, as the probable intent of Congress, because title II of act July 14, 1955, does not contain subtitles.

**CODIFICATION**

Section was formerly classified to section 1857f-6c of this title.

**PRIOR PROVISIONS**

A prior section 211 of act July 14, 1955, as added Nov. 21, 1967, Pub. L. 90-148, §2, 81 Stat. 503, provided for a national emissions standards study and was classified to section 1857f-6d of this title, prior to repeal by section 8(a) of Pub. L. 91-604.

**AMENDMENTS**

2007—Subsec. (c)(1). Pub. L. 110-140, §208, substituted “nonroad vehicle if, in the judgment of the Administrator, any fuel or fuel additive or” for “nonroad vehicle (A) if in the judgment of the Administrator” and “air pollution or water pollution (including any degradation in the quality of groundwater) that” for “air pollution which”.

Subsec. (f)(4). Pub. L. 110-140, §251, amended par. (4) generally. Prior to amendment, par. (4) read as follows: “The Administrator, upon application of any manufacturer of any fuel or fuel additive, may waive the prohibitions established under paragraph (1) or (3) of this

subsection or the limitation specified in paragraph (2) of this subsection, if he determines that the applicant has established that such fuel or fuel additive or a specified concentration thereof, and the emission products of such fuel or additive or specified concentration thereof, will not cause or contribute to a failure of any emission control device or system (over the useful life of any vehicle in which such device or system is used) to achieve compliance by the vehicle with the emission standards with respect to which it has been certified pursuant to section 7525 of this title. If the Administrator has not acted to grant or deny an application under this paragraph within one hundred and eighty days of receipt of such application, the waiver authorized by this paragraph shall be treated as granted."

Subsec. (o)(1). Pub. L. 110-140, § 201, amended par. (1) generally. Prior to amendment, par. (1) defined "cellulosic biomass ethanol", "waste derived ethanol", "renewable fuel", and "small refinery".

Subsec. (o)(2)(A)(i). Pub. L. 110-140, § 202(a)(1), inserted at end "Not later than 1 year after December 19, 2007, the Administrator shall revise the regulations under this paragraph to ensure that transportation fuel sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains at least the applicable volume of renewable fuel, advanced biofuel, cellulosic biofuel, and biomass-based diesel, determined in accordance with subparagraph (B) and, in the case of any such renewable fuel produced from new facilities that commence construction after December 19, 2007, achieves at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions."

Subsec. (o)(2)(B). Pub. L. 110-140, § 202(a)(2), amended subpar. (B) generally. Prior to amendment, subpar. (B) set forth table of applicable volumes for renewable fuel and related to determination of applicable volumes after the years addressed by the table, including the minimum quantity of renewable fuel to be derived from cellulosic biomass and the method of calculating the minimum applicable volume.

Subsec. (o)(3)(A). Pub. L. 110-140, § 202(b)(1), (2), substituted "2021" for "2011" and "transportation fuel, biomass-based diesel, and cellulosic biofuel" for "gasoline".

Subsec. (o)(3)(B)(i). Pub. L. 110-140, § 202(b)(3), substituted "2021" for "2012".

Subsec. (o)(3)(B)(ii)(II). Pub. L. 110-140, § 202(b)(4), substituted "transportation fuel" for "gasoline".

Subsec. (o)(4). Pub. L. 110-140, § 202(c), amended par. (4) generally. Prior to amendment, text read as follows: "For the purpose of paragraph (2), 1 gallon of cellulosic biomass ethanol or waste derived ethanol shall be considered to be the equivalent of 2.5 gallons of renewable fuel."

Subsec. (o)(5)(E). Pub. L. 110-140, § 202(d), added subpar. (E).

Subsec. (o)(7)(A). Pub. L. 110-140, § 202(e)(1), inserted ", by any person subject to the requirements of this subsection, or by the Administrator on his own motion" after "one or more States" in introductory provisions.

Subsec. (o)(7)(B). Pub. L. 110-140, § 202(e)(1), struck out "State" before "petition for a waiver".

Subsec. (o)(7)(D) to (F). Pub. L. 110-140, § 202(e)(2), (3), added subpars. (D) to (F).

Subsec. (o)(11). Pub. L. 110-140, § 203(f), added par. (11).

Subsec. (o)(12). Pub. L. 110-140, § 210(b), added par. (12).

Subsecs. (r), (s). Pub. L. 110-140, § 247, redesignated subsecs. (r), relating to conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels, and (s) as (s) and (t), respectively.

Subsec. (u). Pub. L. 110-140, § 247, which directed amendment of this section by adding subsec. (u) at the end, was executed by adding subsec. (u) after subsec. (t) to reflect the probable intent of Congress.

Subsec. (v). Pub. L. 110-140, § 209, added subsec. (v).

2005—Subsec. (b)(2). Pub. L. 109-58, § 1505(1)(A), substituted "shall, on a regular basis," for "may also" in introductory provisions.

Subsec. (b)(2)(A). Pub. L. 109-58, § 1505(1)(B), added subpar. (A) and struck out former subpar. (A) which read as follows: "to conduct tests to determine potential public health effects of such fuel or additive (including, but not limited to, carcinogenic, teratogenic, or mutagenic effects), and".

Subsec. (b)(4). Pub. L. 109-58, § 1505(2), added par. (4).

Subsec. (c)(4)(C). Pub. L. 109-58, § 1541(a), designated existing provisions as cl. (i) and added cls. (ii) to (iv) and (v) relating to waiver authority.

Subsec. (c)(4)(C)(v). Pub. L. 109-58, § 1541(b), added cl. (v) relating to approval of fuels.

Subsec. (d)(1). Pub. L. 109-58, § 1501(b)(1), substituted "(n), or (o)" for "or (n)" in two places in first sentence and "(m), or (o)" for "or (m)" in second sentence.

Subsec. (d)(2). Pub. L. 109-58, § 1501(b)(2), substituted "(n), and (o)" for "and (n)" in two places in first sentence.

Subsec. (h)(5), (6). Pub. L. 109-58, § 1501(c), added par. (5) and redesignated former par. (5) as (6).

Subsec. (k)(1). Pub. L. 109-58, § 1504(b), designated existing provisions as subpar. (A), inserted heading, substituted "Not later than November 15, 1991," for "Within 1 year after November 15, 1990," and added subpar. (B).

Subsec. (k)(2)(A). Pub. L. 109-58, § 1504(a)(1)(A)(i), struck out "(including the oxygen content requirement contained in subparagraph (B))" after "requirements of this paragraph".

Subsec. (k)(2)(B) to (D). Pub. L. 109-58, § 1504(a)(1)(A)(ii), (iii), redesignated subpars. (C) and (D) as (B) and (C), respectively, and struck out heading and text of former subpar. (B). Text read as follows: "The oxygen content of the gasoline shall equal or exceed 2.0 percent by weight (subject to a testing tolerance established by the Administrator) except as otherwise required by this chapter. The Administrator may waive, in whole or in part, the application of this subparagraph for any ozone nonattainment area upon a determination by the Administrator that compliance with such requirement would prevent or interfere with the attainment by the area of a national primary ambient air quality standard."

Subsec. (k)(3)(A)(v). Pub. L. 109-58, § 1504(a)(1)(B), struck out heading and text of cl. (v). Text read as follows: "The oxygen content of the reformulated gasoline shall equal or exceed 2.0 percent by weight (subject to a testing tolerance established by the Administrator) except as otherwise required by this chapter."

Subsec. (k)(6). Pub. L. 109-58, § 1507, redesignated subpars. (A) and (B) as cls. (i) and (ii), respectively, of subpar. (A), inserted subpar. and cl. headings, in cl. (ii) substituted "clause (i)" for "subparagraph (A)" and "this subparagraph" for "this paragraph", and added subpar. (B).

Subsec. (k)(7)(A). Pub. L. 109-58, § 1504(a)(1)(C)(i), redesignated cls. (ii) and (iii) as (i) and (ii), respectively, and struck out former cl. (i) which read as follows: "has an oxygen content (by weight) that exceeds the minimum oxygen content specified in paragraph (2);"

Subsec. (k)(7)(C)(ii), (iii). Pub. L. 109-58, § 1504(a)(1)(C)(ii), redesignated cl. (iii) as (ii) and struck out former cl. (ii) which read as follows: "An average gasoline oxygen content (by weight) for the nonattainment area (taking into account all gasoline sold for use in conventional gasoline-fueled vehicles in the nonattainment area) lower than the average gasoline oxygen content (by weight) that would occur in the absence of using any such credits."

Subsec. (o). Pub. L. 109-58, § 1501(a)(2), added subsec. (o). Former subsec. (o) redesignated (r) relating to fuel and fuel additive importers and importation.

Subsec. (q). Pub. L. 109-58, § 1506, which directed amendment of this section by adding subsec. (q) after subsec. (p), was executed by making the addition after subsec. (o) to reflect the probable intent of Congress.

Subsec. (r). Pub. L. 109-58, § 1512, added subsec. (r) relating to conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels.

Pub. L. 109-58, § 1501(a)(1), redesignated subsec. (o) as (r) relating to fuel and fuel additive importers and importation.



Subsec. (s). Pub. L. 109-58, § 1513, added subsec. (s).  
 1990—Subsec. (a). Pub. L. 101-549, § 212, inserted “(including any fuel or fuel additive used exclusively in nonroad engines or nonroad vehicles)” after “fuel or fuel additive”.

Subsecs. (b)(2)(B), (c)(1). Pub. L. 101-549, § 212(b), (c), inserted reference to nonroad engine or nonroad vehicle.

Subsec. (c)(4)(A). Pub. L. 101-549, § 213(a), substituted “any characteristic or component of a” for “use of a”, inserted “of the characteristic or component of a fuel or fuel additive” after “control or prohibition” in cl. (i), and inserted “characteristic or component of a” after “such” in cl. (ii).

Subsec. (c)(4)(C). Pub. L. 101-549, § 213(b), inserted last two sentences, authorizing Administrator to make a finding that State control or prohibition is necessary to achieve the standard.

Subsec. (d). Pub. L. 101-549, § 228(d), amended subsec. (d) generally. Prior to amendment, subsec. (d) read as follows: “Any person who violates subsection (a) or (f) or the regulations prescribed under subsection (c) or who fails to furnish any information required by the Administrator under subsection (b) shall forfeit and pay to the United States a civil penalty of \$10,000 for each and every day of the continuance of such violation, which shall accrue to the United States and be recovered in a civil suit in the name of the United States, brought in the district where such person has his principal office or in any district in which he does business. The Administrator may, upon application therefor, remit or mitigate any forfeiture provided for in this subsection and he shall have authority to determine the facts upon all such applications.”

Subsec. (f)(1). Pub. L. 101-549, § 214(a), designated existing provisions as subpar. (A) and added subpar. (B).  
 Subsec. (f)(3). Pub. L. 101-549, § 214(b), substituted reference to paragraph (1)(A) for reference to paragraph (1).

Subsec. (g). Pub. L. 101-549, § 215, amended subsec. (g) generally, substituting present provisions for provisions which defined “gasoline”, “refinery”, and “small refinery” and which limited Administrator’s authority to require small refineries to reduce average lead content per gallon of gasoline.

Subsec. (h). Pub. L. 101-549, § 216, added subsec. (h).  
 Subsec. (i). Pub. L. 101-549, § 217, added subsec. (i).  
 Subsec. (j). Pub. L. 101-549, § 218(a), added subsec. (j).  
 Subsecs. (k) to (m). Pub. L. 101-549, § 219, added subsecs. (k) to (m).

Subsec. (n). Pub. L. 101-549, § 220, added subsec. (n).  
 Subsec. (o). Pub. L. 101-549, § 221, added subsec. (o).  
 1977—Subsec. (c)(1)(A). Pub. L. 95-95, § 401(e), substituted “if in the judgment of the Administrator any emission product of such fuel or fuel additive causes, or contributes, to air pollution which may reasonably be anticipated to endanger” for “if any emission products of such fuel or fuel additive will endanger”.

Subsec. (d). Pub. L. 95-95, § 222(b), inserted “or (f)” after “Any person who violates subsection (a)”.

Subsecs. (e), (f). Pub. L. 95-95, § 222(a), added subsecs. (e) and (f).

Subsec. (f)(2). Pub. L. 95-190, § 14(a)(73), inserted provision relating to waiver under par. (4) of this subsec., and struck out “first” before “introduce”.

Subsec. (f)(4). Pub. L. 95-190, § 14(a)(74), inserted provision relating to applicability of limitation specified under par. (2) of this subsection.

Subsec. (g). Pub. L. 95-95, § 223, added subsec. (g).  
 1971—Subsec. (c)(3)(A). Pub. L. 92-157, § 302(d), substituted “purpose of obtaining” for “purpose of”.

Subsec. (d). Pub. L. 92-157, § 302(e), substituted “subsection (b)” for “subsection (c)” where appearing the second time.

1970—Subsec. (a). Pub. L. 91-604, § 9(a), substituted “Administrator” for “Secretary” as the registering authority, inserted references to fuel additives, and substituted the selling, offering for sale, and introduction into commerce of fuel or fuel additives, for the delivery for introduction into interstate commerce or delivery

to another person who can reasonably be expected to deliver fuel into interstate commerce.

Subsec. (b). Pub. L. 91-604, § 9(a), designated existing provisions as pars. (1) and (3), added par. (2), and substituted “Administrator” for “Secretary” wherever appearing.

Subsec. (c). Pub. L. 91-604, § 9(a), substituted provisions covering the control or prohibition of offending fuels and fuel additives, for provisions covering trade secrets and substituted “Administrator” for “Secretary” wherever appearing.

Subsec. (d). Pub. L. 91-604, § 9(a), inserted references to failure to obey regulations prescribed under subsec. (c) and failure to furnish information required by the Administrator under subsec. (c), increased the daily civil penalty from \$1,000 to \$10,000 and substituted “Administrator” for “Secretary”.

Subsec. (e). Pub. L. 91-604, § 9(a), struck out subsec. (e) which directed the various United States Attorneys to prosecute for the recovery of forfeitures.

#### Statutory Notes and Related Subsidiaries

##### EFFECTIVE DATE OF 2007 AMENDMENT

Pub. L. 110-140, title II, § 210(c), Dec. 19, 2007, 121 Stat. 1532, provided that: “The amendments made by this title to section 211(o) of the Clean Air Act [42 U.S.C. 7545(o)] shall take effect January 1, 2009, except that the Administrator [of the Environmental Protection Agency] shall promulgate regulations to carry out such amendments not later than 1 year after the enactment of this Act [Dec. 19, 2007].”

Amendment by Pub. L. 110-140 effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110-140, set out as an Effective Date note under section 1824 of Title 2, The Congress.

##### EFFECTIVE DATE OF 2005 AMENDMENT

Pub. L. 109-58, title XV, § 1504(a)(2), Aug. 8, 2005, 119 Stat. 1077, provided that: “The amendments made by paragraph (1) [amending this section] apply—

“(A) in the case of a State that has received a waiver under section 209(b) of the Clean Air Act (42 U.S.C. 7543(b)), beginning on the date of enactment of this Act [Aug. 8, 2005]; and

“(B) in the case of any other State, beginning 270 days after the date of enactment of this Act [Aug. 8, 2005].”

##### EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

##### SAVINGS

Pub. L. 109-58, title XV, § 1504(d), Aug. 8, 2005, 119 Stat. 1079, provided that:

“(1) IN GENERAL.—Nothing in this section [amending this section and enacting provisions set out as notes under this section] or any amendment made by this section affects or prejudices any legal claim or action with respect to regulations promulgated by the Administrator [of the Environmental Protection Agency] before the date of enactment of this Act [Aug. 8, 2005] regarding—

“(A) emissions of toxic air pollutants from motor vehicles; or

“(B) the adjustment of standards applicable to a specific refinery or importer made under those regulations.

“(2) ADJUSTMENT OF STANDARDS.—

“(A) APPLICABILITY.—The Administrator may apply any adjustments to the standards applicable to a refinery or importer under subparagraph (B)(iii)(I) of section 211(k)(1) of the Clean Air Act [42 U.S.C. 7545(k)(1)(B)(iii)(I)] (as added by subsection (b)(2)), except that—

“(i) the Administrator shall revise the adjustments to be based only on calendar years 1999 and 2000;



“(ii) any such adjustment shall not be made at a level below the average percentage of reductions of emissions of toxic air pollutants for reformulated gasoline supplied to PADD I during calendar years 1999 and 2000; and

“(iii) in the case of an adjustment based on toxic air pollutant emissions from reformulated gasoline significantly below the national annual average emissions of toxic air pollutants from all reformulated gasoline—

“(I) the Administrator may revise the adjustment to take account of the scope of the prohibition on methyl tertiary butyl ether imposed by a State; and

“(II) any such adjustment shall require the refiner or importer, to the maximum extent practicable, to maintain the reduction achieved during calendar years 1999 and 2000 in the average annual aggregate emissions of toxic air pollutants from reformulated gasoline produced or distributed by the refiner or importer.”

#### ENVIRONMENTAL AND RESOURCE CONSERVATION IMPACTS

Pub. L. 110-140, title II, §204, Dec. 19, 2007, 121 Stat. 1529, provided that:

“(a) IN GENERAL.—Not later than 3 years after the enactment of this section [Dec. 19, 2007] and every 3 years thereafter, the Administrator of the Environmental Protection Agency, in consultation with the Secretary of Agriculture and the Secretary of Energy, shall assess and report to Congress on the impacts to date and likely future impacts of the requirements of section 211(o) of the Clean Air Act [42 U.S.C. 7545(o)] on the following:

“(1) Environmental issues, including air quality, effects on hypoxia, pesticides, sediment, nutrient and pathogen levels in waters, acreage and function of waters, and soil environmental quality.

“(2) Resource conservation issues, including soil conservation, water availability, and ecosystem health and biodiversity, including impacts on forests, grasslands, and wetlands.

“(3) The growth and use of cultivated invasive or noxious plants and their impacts on the environment and agriculture.

In advance of preparing the report required by this subsection, the Administrator may seek the views of the National Academy of Sciences or another appropriate independent research institute. The report shall include the annual volume of imported renewable fuels and feedstocks for renewable fuels, and the environmental impacts outside the United States of producing such fuels and feedstocks. The report required by this subsection shall include recommendations for actions to address any adverse impacts found.

“(b) EFFECT ON AIR QUALITY AND OTHER ENVIRONMENTAL REQUIREMENTS.—Except as provided in section 211(o)(12) of the Clean Air Act [42 U.S.C. 7545(o)(12)], nothing in the amendments made by this title to section 211(o) of the Clean Air Act shall be construed as superseding, or limiting, any more environmentally protective requirement under the Clean Air Act [42 U.S.C. 7401 et seq.], or under any other provision of State or Federal law or regulation, including any environmental law or regulation.”

#### TRANSITION RULES

Pub. L. 110-140, title II, §210(a), Dec. 19, 2007, 121 Stat. 1532, provided that:

“(1) For calendar year 2008, transportation fuel sold or introduced into commerce in the United States (except in noncontiguous States or territories), that is produced from facilities that commence construction after the date of enactment of this Act [Dec. 19, 2007] shall be treated as renewable fuel within the meaning of section 211(o) of the Clean Air Act [42 U.S.C. 7545(o)] only if it achieves at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions. For calendar years 2008 and 2009, any ethanol plant that is fired with

natural gas, biomass, or any combination thereof is deemed to be in compliance with such 20 percent reduction requirement and with the 20 percent reduction requirement of section 211(o)(1) of the Clean Air Act. The terms used in this subsection shall have the same meaning as provided in the amendment made by this Act to section 211(o) of the Clean Air Act.

“(2) Until January 1, 2009, the Administrator of the Environmental Protection Agency shall implement section 211(o) of the Clean Air Act and the rules promulgated under that section in accordance with the provisions of that section as in effect before the enactment of this Act and in accordance with the rules promulgated before the enactment of this Act, except that for calendar year 2008, the number ‘9.0’ shall be substituted for the number ‘5.4’ in the table in section 211(o)(2)(B) and in the corresponding rules promulgated to carry out those provisions. The Administrator is authorized to take such other actions as may be necessary to carry out this paragraph notwithstanding any other provision of law.”

#### SURVEY OF RENEWABLE FUEL MARKET

Pub. L. 109-58, title XV, §1501(d), Aug. 8, 2005, 119 Stat. 1075, provided that:

“(1) SURVEY AND REPORT.—Not later than December 1, 2006, and annually thereafter, the Administrator of the Environmental Protection Agency (in consultation with the Secretary [of Energy] acting through the Administrator of the Energy Information Administration) shall—

“(A) conduct, with respect to each conventional gasoline use area and each reformulated gasoline use area in each State, a survey to determine the market shares of—

“(i) conventional gasoline containing ethanol;

“(ii) reformulated gasoline containing ethanol;

“(iii) conventional gasoline containing renewable fuel; and

“(iv) reformulated gasoline containing renewable fuel; and

“(B) submit to Congress, and make publicly available, a report on the results of the survey under subparagraph (A).

“(2) RECORDKEEPING AND REPORTING REQUIREMENTS.—The Administrator of the Environmental Protection Agency (hereinafter in this subsection referred to as the ‘Administrator’) may require any refiner, blender, or importer to keep such records and make such reports as are necessary to ensure that the survey conducted under paragraph (1) is accurate. The Administrator, to avoid duplicative requirements, shall rely, to the extent practicable, on existing reporting and recordkeeping requirements and other information available to the Administrator including gasoline distribution patterns that include multistate use areas.

“(3) APPLICABLE LAW.—Activities carried out under this subsection shall be conducted in a manner designed to protect confidentiality of individual responses.”

#### FINDINGS

Pub. L. 109-58, title XV, §1502, Aug. 8, 2005, 119 Stat. 1076, provided that: “Congress finds that—

“(1) since 1979, methyl tertiary butyl ether (hereinafter in this section referred to as ‘MTBE’) has been used nationwide at low levels in gasoline to replace lead as an octane booster or anti-knocking agent;

“(2) Public Law 101-549 (commonly known as the ‘Clean Air Act Amendments of 1990’) (42 U.S.C. 7401 et seq.) [see Tables for classification] established a fuel oxygenate standard under which reformulated gasoline must contain at least 2 percent oxygen by weight; and

“(3) the fuel industry responded to the fuel oxygenate standard established by Public Law 101-549 by making substantial investments in—

“(A) MTBE production capacity; and

“(B) systems to deliver MTBE-containing gasoline to the marketplace.”

## CLAIMS FILED AFTER AUGUST 8, 2005

Pub. L. 109-58, title XV, §1503, Aug. 8, 2005, 119 Stat. 1076, provided that: “Claims and legal actions filed after the date of enactment of this Act [Aug. 8, 2005] related to allegations involving actual or threatened contamination of methyl tertiary butyl ether (MTBE) may be removed to the appropriate United States district court.”

## FINDINGS AND SENSE OF CONGRESS ON ETHANOL USAGE

Pub. L. 100-203, title I, §1508, Dec. 22, 1987, 101 Stat. 1330-29, provided that:

“(a) FINDINGS.—Congress finds that—

“(1) the United States is dependent for a large and growing share of its energy needs on the Middle East at a time when world petroleum reserves are declining;

“(2) the burning of gasoline causes pollution;

“(3) ethanol can be blended with gasoline to produce a cleaner source of fuel;

“(4) ethanol can be produced from grain, a renewable resource that is in considerable surplus in the United States;

“(5) the conversion of grain into ethanol would reduce farm program costs and grain surpluses; and

“(6) increasing the quantity of motor fuels that contain at least 10 percent ethanol from current levels to 50 percent by 1992 would create thousands of new jobs in ethanol production facilities.

“(b) SENSE OF CONGRESS.—It is the sense of Congress that the Administrator of the Environmental Protection Agency should use authority provided under the Clean Air Act (42 U.S.C. 7401 et seq.) to require greater use of ethanol as motor fuel.”

## AGRICULTURAL MACHINERY: STUDY OF UNLEADED FUEL

Pub. L. 99-198, title XVII, §1765, Dec. 23, 1985, 99 Stat. 1653, directed Administrator of EPA and Secretary of Agriculture jointly to conduct a study of use of fuel containing lead additives, and alternative lubricating additives, in gasoline engines that are used in agricultural machinery, and designed to combust fuel containing such additives, study to analyze potential for mechanical problems (including but not limited to valve recession) that may be associated with use of other fuels in such engines, and not later than Jan. 1, 1987, Administrator and Secretary to publish results of the study, with Administrator to publish in Federal Register notice of publication of such study and a summary thereof; directed Administrator, after notice and opportunity for hearing, but not later than 6 months after publication of the study, to make findings and recommendations on need for lead additives in gasoline to be used on a farm for farming purposes, including a determination of whether a modification of regulations limiting lead content of gasoline would be appropriate in the case of gasoline used on a farm for farming purposes, and submit to President and Congress a report containing the study, a summary of comments received during public hearing (including comments of Secretary), and findings and recommendations of Administrator made in accordance with clause (1), such report to be transmitted named congressional committees; directed Administrator between Jan. 1, 1986, and Dec. 31, 1987, to monitor actual lead content of leaded gasoline sold in the United States, with Administrator to determine average lead content of such gasoline for each 3-month period between Jan. 1, 1986, and Dec. 31, 1987, and if actual lead content falls below an average of 0.2 of a gram of lead per gallon in any such 3-month period, to report to Congress, and publish a notice thereof in Federal Register; provided that until Jan. 1, 1988, no regulation of Administrator issued under this section 211 could require an average lead content per gallon that is

less than 0.1 of a gram per gallon; and authorized an appropriation.

## MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

## § 7546. Renewable fuel

## (a) Definitions

In this section:

## (1) Municipal solid waste

The term “municipal solid waste” has the meaning given the term “solid waste” in section 6903 of this title.

## (2) RFG State

The term “RFG State” means a State in which is located one or more covered areas (as defined in section 7545(k)(10)(D) of this title).

## (3) Secretary

The term “Secretary” means the Secretary of Energy.

## (b) Cellulosic biomass ethanol and municipal solid waste loan guarantee program

## (1) In general

Funds may be provided for the cost (as defined in the Federal Credit Reform Act of 1990 (2 U.S.C. 661 et seq.)) of loan guarantees issued under title XIV of the Energy Policy Act<sup>1</sup> to carry out commercial demonstration projects for cellulosic<sup>2</sup> biomass and sucrose-derived ethanol.

## (2) Demonstration projects

## (A) In general

The Secretary shall issue loan guarantees under this section to carry out not more than 4 projects to commercially demonstrate the feasibility and viability of producing cellulosic biomass ethanol or sucrose-derived ethanol, including at least 1 project that uses cereal straw as a feedstock and 1 project that uses municipal solid waste as a feedstock.

## (B) Design capacity

Each project shall have a design capacity to produce at least 30,000,000 gallons of cellulosic biomass ethanol each year.

## (3) Applicant assurances

An applicant for a loan guarantee under this section shall provide assurances, satisfactory to the Secretary, that—

(A) the project design has been validated through the operation of a continuous proc-

<sup>1</sup> See References in Text note below.

<sup>2</sup> So in original.

cles moving from high altitude areas to low altitude areas after the initial registration of such vehicles.

**(c) Manufacturer parts**

No instructions under this section respecting adjustments or modifications may require the use of any manufacturer parts (as defined in section 7522(a) of this title) unless the manufacturer demonstrates to the satisfaction of the Administrator that the use of such manufacturer parts is necessary to insure emission control performance.

**(d) State inspection and maintenance programs**

Before January 1, 1981 the authority provided by this section shall be available in any high altitude State (as determined under regulations of the Administrator under regulations promulgated before August 7, 1977) but after December 31, 1980, such authority shall be available only in any such State in which an inspection and maintenance program for the testing of motor vehicle emissions has been instituted for the portions of the State where any national ambient air quality standard for auto-related pollutants has not been attained.

**(e) High altitude testing**

(1) The Administrator shall promptly establish at least one testing center (in addition to the testing centers existing on November 15, 1990) located at a site that represents high altitude conditions, to ascertain in a reasonable manner whether, when in actual use throughout their useful life (as determined under section 7521(d) of this title), each class or category of vehicle and engines to which regulations under section 7521 of this title apply conforms to the emissions standards established by such regulations. For purposes of this subsection, the term “high altitude conditions” refers to high altitude as defined in regulations of the Administrator in effect as of November 15, 1990.

(2) The Administrator, in cooperation with the Secretary of Energy and the Administrator of the Federal Transit Administration, and such other agencies as the Administrator deems appropriate, shall establish a research and technology assessment center to provide for the development and evaluation of less-polluting heavy-duty engines and fuels for use in buses, heavy-duty trucks, and non-road engines and vehicles, which shall be located at a high-altitude site that represents high-altitude conditions. In establishing and funding such a center, the Administrator shall give preference to proposals which provide for local cost-sharing of facilities and recovery of costs of operation through utilization of such facility for the purposes of this section.

(3) The Administrator shall designate at least one center at high-altitude conditions to provide research on after-market emission components, dual-fueled vehicles and conversion kits, the effects of tampering on emissions equipment, testing of alternate fuels and conversion kits, and the development of curricula, training courses, and materials to maximize the effectiveness of inspection and maintenance programs as they relate to promoting effective control of vehicle emissions at high-altitude elevations. Pref-

erence shall be given to existing vehicle emissions testing and research centers that have established reputations for vehicle emissions research and development and training, and that possess in-house Federal Test Procedure capacity.

(July 14, 1955, ch. 360, title II, § 215, as added Pub. L. 95–95, title II, § 211(b), Aug. 7, 1977, 91 Stat. 757; amended Pub. L. 95–190, § 14(a)(75), Nov. 16, 1977, 91 Stat. 1404; Pub. L. 101–549, title II, § 224, Nov. 15, 1990, 104 Stat. 2503; Pub. L. 102–240, title III, § 3004(b), Dec. 18, 1991, 105 Stat. 2088.)

**Editorial Notes**

**CODIFICATION**

In subsec. (d), “August 7, 1977” substituted for “the date of enactment of this Act” to reflect the probable intent of Congress that such date of enactment meant the date of enactment of Pub. L. 95–95.

**AMENDMENTS**

1990—Subsec. (e). Pub. L. 101–549 added subsec. (e).  
 1977—Subsec. (d). Pub. L. 95–190 substituted “December 31, 1980” for “December 31, 1981”.

**Statutory Notes and Related Subsidiaries**

**CHANGE OF NAME**

“Federal Transit Administration” substituted for “Urban Mass Transportation Administration” in subsec. (e)(2) pursuant to section 3004(b) of Pub. L. 102–240, set out as a note under section 107 of Title 49, Transportation.

**EFFECTIVE DATE**

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

**§ 7550. Definitions**

As used in this part—

(1) The term “manufacturer” as used in sections 7521, 7522, 7525, 7541, and 7542 of this title means any person engaged in the manufacturing or assembling of new motor vehicles, new motor vehicle engines, new nonroad vehicles or new nonroad engines, or importing such vehicles or engines for resale, or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles, new motor vehicle engines, new nonroad vehicles or new nonroad engines, but shall not include any dealer with respect to new motor vehicles, new motor vehicle engines, new nonroad vehicles or new nonroad engines received by him in commerce.

(2) The term “motor vehicle” means any self-propelled vehicle designed for transporting persons or property on a street or highway.

(3) Except with respect to vehicles or engines imported or offered for importation, the term “new motor vehicle” means a motor vehicle the equitable or legal title to which has never been transferred to an ultimate purchaser; and the term “new motor vehicle engine” means an engine in a new motor vehicle or a motor vehicle engine the equitable or legal title to which has never been transferred to the ultimate purchaser; and with respect to



imported vehicles or engines, such terms mean a motor vehicle and engine, respectively, manufactured after the effective date of a regulation issued under section 7521 of this title which is applicable to such vehicle or engine (or which would be applicable to such vehicle or engine had it been manufactured for importation into the United States).

(4) The term “dealer” means any person who is engaged in the sale or the distribution of new motor vehicles or new motor vehicle engines to the ultimate purchaser.

(5) The term “ultimate purchaser” means, with respect to any new motor vehicle or new motor vehicle engine, the first person who in good faith purchases such new motor vehicle or new engine for purposes other than resale.

(6) The term “commerce” means (A) commerce between any place in any State and any place outside thereof; and (B) commerce wholly within the District of Columbia.

(7) VEHICLE CURB WEIGHT, GROSS VEHICLE WEIGHT RATING, LIGHT-DUTY TRUCK, LIGHT-DUTY VEHICLE, AND LOADED VEHICLE WEIGHT.—The terms “vehicle curb weight”, “gross vehicle weight rating” (GVWR), “light-duty truck” (LDT), light-duty vehicle,<sup>1</sup> and “loaded vehicle weight” (LVW) have the meaning provided in regulations promulgated by the Administrator and in effect as of November 15, 1990. The abbreviations in parentheses corresponding to any term referred to in this paragraph shall have the same meaning as the corresponding term.

(8) TEST WEIGHT.—The term “test weight” and the abbreviation “tw” mean the vehicle curb weight added to the gross vehicle weight rating (gvwr) and divided by 2.

(9) MOTOR VEHICLE OR ENGINE PART MANUFACTURER.—The term “motor vehicle or engine part manufacturer” as used in sections 7541 and 7542 of this title means any person engaged in the manufacturing, assembling or rebuilding of any device, system, part, component or element of design which is installed in or on motor vehicles or motor vehicle engines.

(10) NONROAD ENGINE.—The term “nonroad engine” means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title or section 7521 of this title.

(11) NONROAD VEHICLE.—The term “nonroad vehicle” means a vehicle that is powered by a nonroad engine and that is not a motor vehicle or a vehicle used solely for competition.

(July 14, 1955, ch. 360, title II, §216, formerly §208, as added Pub. L. 89-272, title I, §101(8), Oct. 20, 1965, 79 Stat. 994; renumbered §212, and amended Pub. L. 90-148, §2, Nov. 21, 1967, 81 Stat. 503; renumbered §213, and amended Pub. L. 91-604, §§8(a), 10(d), 11(a)(2)(A), Dec. 31, 1970, 84 Stat. 1694, 1703, 1705; renumbered §214, Pub. L. 93-319, §10, June 22, 1974, 88 Stat. 261; renumbered §216, Pub. L. 95-95, title II, §224(d), Aug. 7, 1977, 91 Stat. 767; Pub. L. 101-549, title II, §223, Nov. 15, 1990, 104 Stat. 2503.)

<sup>1</sup> So in original. Probably should be set off by quotation marks.

## Editorial Notes

### CODIFICATION

Section was formerly classified to section 1857f-7 of this title.

### AMENDMENTS

1990—Par. (1). Pub. L. 101-549, §223(b), inserted references to new nonroad vehicles or new nonroad engines.

Pars. (7) to (11). Pub. L. 101-549, §223(a), added pars. (7) to (11).

1970—Pub. L. 91-604, §11(a)(2)(A), substituted “part” for “subchapter”.

Par. (1). Pub. L. 91-604, §10(d)(1), inserted reference to section 7521 of this title.

Par. (3). Pub. L. 91-604, §10(d)(2), inserted provisions which defined such terms with respect to imported vehicles or engines.

1967—Pub. L. 90-148 inserted “as used in sections 7522, 7525, 7541, and 7542 of this title” after “manufacturer” in par. (1).

## § 7551. Omitted

## Editorial Notes

### CODIFICATION

Section, Pub. L. 95-95, title II, §203, Aug. 7, 1977, 91 Stat. 754; Pub. L. 97-375, title I, §106(a), Dec. 21, 1982, 96 Stat. 1820, which required the Administrator of the Environmental Protection Agency to report to Congress respecting the motor vehicle fuel consumption associated with the standards applicable for the immediately preceding model year, terminated, effective May 15, 2000, pursuant to section 3003 of Pub. L. 104-66, as amended, set out as a note under section 1113 of Title 31, Money and Finance. See, also, the 5th item on page 165 of House Document No. 103-7. Section was enacted as part of the Clean Air Act Amendments of 1977, and not as part of the Clean Air Act which comprises this chapter.

## § 7552. Motor vehicle compliance program fees

### (a) Fee collection

Consistent with section 9701 of title 31, the Administrator may promulgate (and from time to time revise) regulations establishing fees to recover all reasonable costs to the Administrator associated with—

(1) new vehicle or engine certification under section 7525(a) of this title or part C,

(2) new vehicle or engine compliance monitoring and testing under section 7525(b) of this title or part C, and

(3) in-use vehicle or engine compliance monitoring and testing under section 7541(c) of this title or part C.

The Administrator may establish for all foreign and domestic manufacturers a fee schedule based on such factors as the Administrator finds appropriate and equitable and nondiscriminatory, including the number of vehicles or engines produced under a certificate of conformity. In the case of heavy-duty engine and vehicle manufacturers, such fees shall not exceed a reasonable amount to recover an appropriate portion of such reasonable costs.

### (b) Special Treasury fund

Any fees collected under this section shall be deposited in a special fund in the United States Treasury for licensing and other services which thereafter shall be available for appropriation,



Title 49, Transportation, by Pub. L. 97-449, Jan. 12, 1983, 96 Stat. 2413, and Pub. L. 103-272, July 5, 1994, 108 Stat. 745. The Act was also repealed by Pub. L. 104-287, § 7(5), Oct. 11, 1996, 110 Stat. 3400. For disposition of sections of former Title 49, see Table at the beginning of Title 49.

CODIFICATION

In subsecs. (a) and (b), “part A of subtitle VII of title 49” substituted for “the Federal Aviation Act [49 App. U.S.C. 1301 et seq.]” and “the Federal Aviation Act of 1958 [49 App. U.S.C. 1301 et seq.]” on authority of Pub. L. 103-272, § 6(b), July 5, 1994, 108 Stat. 1378, the first section of which enacted subtitles II, III, and V to X of Title 49, Transportation.

Section was formerly classified to section 1857f-10 of this title.

§ 7573. State standards and controls

No State or political subdivision thereof may adopt or attempt to enforce any standard respecting emissions of any air pollutant from any aircraft or engine thereof unless such standard is identical to a standard applicable to such aircraft under this part.

(July 14, 1955, ch. 360, title II, § 233, as added Pub. L. 91-604, § 11(a)(1), Dec. 31, 1970, 84 Stat. 1704.)

Editorial Notes

CODIFICATION

Section was formerly classified to section 1857f-11 of this title.

§ 7574. Definitions

Terms used in this part (other than Administrator) shall have the same meaning as such terms have under section 40102(a) of title 49.

(July 14, 1955, ch. 360, title II, § 234, as added Pub. L. 91-604, § 11(a)(1), Dec. 31, 1970, 84 Stat. 1705.)

Editorial Notes

CODIFICATION

In text, “section 40102(a) of title 49” substituted for “section 101 of the Federal Aviation Act of 1958” on authority of Pub. L. 103-272, § 6(b), July 5, 1994, 108 Stat. 1378, the first section of which enacted subtitles II, III, and V to X of Title 49, Transportation.

Section was formerly classified to section 1857f-12 of this title.

PART C—CLEAN FUEL VEHICLES

§ 7581. Definitions

For purposes of this part—

(1) Terms defined in part A

The definitions applicable to part A under section 7550 of this title shall also apply for purposes of this part.

(2) Clean alternative fuel

The term “clean alternative fuel” means any fuel (including methanol, ethanol, or other alcohols (including any mixture thereof containing 85 percent or more by volume of such alcohol with gasoline or other fuels), reformulated gasoline, diesel, natural gas, liquefied petroleum gas, and hydrogen) or power source (including electricity) used in a clean-fuel vehicle that complies with the standards and requirements applicable to such vehicle

under this subchapter when using such fuel or power source. In the case of any flexible fuel vehicle or dual fuel vehicle, the term “clean alternative fuel” means only a fuel with respect to which such vehicle was certified as a clean-fuel vehicle meeting the standards applicable to clean-fuel vehicles under section 7583(d)(2) of this title when operating on clean alternative fuel (or any CARB standards which replaces such standards pursuant to section 7583(e) of this title).

(3) NMOG

The term nonmethane organic gas (“NMOG”) means the sum of nonoxygenated and oxygenated hydrocarbons contained in a gas sample, including, at a minimum, all oxygenated organic gases containing 5 or fewer carbon atoms (i.e., aldehydes, ketones, alcohols, ethers, etc.), and all known alkanes, alkenes, alkynes, and aromatics containing 12 or fewer carbon atoms. To demonstrate compliance with a NMOG standard, NMOG emissions shall be measured in accordance with the “California Non-Methane Organic Gas Test Procedures”. In the case of vehicles using fuels other than base gasoline, the level of NMOG emissions shall be adjusted based on the reactivity of the emissions relative to vehicles using base gasoline.

(4) Base gasoline

The term “base gasoline” means gasoline which meets the following specifications:

Specifications of Base Gasoline Used as Basis for Reactivity Readjustment:	
API gravity .....	57.8
Sulfur, ppm .....	317
Color .....	Purple
Benzene, vol. % .....	1.35
Reid vapor pressure .....	8.7
Drivability .....	1195
Antiknock index .....	87.3
Distillation, D-86 °F	
IBP .....	92
10% .....	126
50% .....	219
90% .....	327
EP .....	414
Hydrocarbon Type, Vol. % FIA:	
Aromatics .....	30.9
Olefins .....	8.2
Saturates .....	60.9

The Administrator shall modify the definitions of NMOG, base gasoline, and the methods for making reactivity adjustments, to conform to the definitions and method used in California under the Low-Emission Vehicle and Clean Fuel Regulations of the California Air Resources Board, so long as the California definitions are, in the aggregate, at least as protective of public health and welfare as the definitions in this section.

(5) Covered fleet

The term “covered fleet” means 10 or more motor vehicles which are owned or operated by a single person. In determining the number of vehicles owned or operated by a single person for purposes of this paragraph, all motor vehicles owned or operated, leased or otherwise controlled by such person, by any person who controls such person, by any person con-

trolled by such person, and by any person under common control with such person shall be treated as owned by such person. The term “covered fleet” shall not include motor vehicles held for lease or rental to the general public, motor vehicles held for sale by motor vehicle dealers (including demonstration vehicles), motor vehicles used for motor vehicle manufacturer product evaluations or tests, law enforcement and other emergency vehicles, or nonroad vehicles (including farm and construction vehicles).

**(6) Covered fleet vehicle**

The term “covered fleet vehicle” means only a motor vehicle which is—

- (i) in a vehicle class for which standards are applicable under this part; and
- (ii) in a covered fleet which is centrally fueled (or capable of being centrally fueled).

No vehicle which under normal operations is garaged at a personal residence at night shall be considered to be a vehicle which is capable of being centrally fueled within the meaning of this paragraph.

**(7) Clean-fuel vehicle**

The term “clean-fuel vehicle” means a vehicle in a class or category of vehicles which has been certified to meet for any model year the clean-fuel vehicle standards applicable under this part for that model year to clean-fuel vehicles in that class or category.

(July 14, 1955, ch. 360, title II, § 241, as added Pub. L. 101-549, title II, § 229(a), Nov. 15, 1990, 104 Stat. 2511.)

**§ 7582. Requirements applicable to clean-fuel vehicles**

**(a) Promulgation of standards**

Not later than 24 months after November 15, 1990, the Administrator shall promulgate regulations under this part containing clean-fuel vehicle standards for the clean-fuel vehicles specified in this part.

**(b) Other requirements**

Clean-fuel vehicles of up to 8,500 gvwr subject to standards set forth in this part shall comply with all motor vehicle requirements of this subchapter (such as requirements relating to on-board diagnostics, evaporative emissions, etc.) which are applicable to conventional gasoline-fueled vehicles of the same category and model year, except as provided in section 7584 of this title with respect to administration and enforcement, and except to the extent that any such requirement is in conflict with the provisions of this part. Clean-fuel vehicles of 8,500 gvwr or greater subject to standards set forth in this part shall comply with all requirements of this subchapter which are applicable in the case of conventional gasoline-fueled or diesel fueled vehicles of the same category and model year, except as provided in section 7584 of this title with respect to administration and enforcement, and except to the extent that any such requirement is in conflict with the provisions of this part.

**(c) In-use useful life and testing**

(1) In the case of light-duty vehicles and light-duty trucks up to 6,000 lbs gvwr, the useful life

for purposes of determining in-use compliance with the standards under section 7583 of this title shall be—

(A) a period of 5 years or 50,000 miles (or the equivalent) whichever first occurs, in the case of standards applicable for purposes of certification at 50,000 miles; and

(B) a period of 10 years or 100,000 miles (or the equivalent) whichever first occurs, in the case of standards applicable for purposes of certification at 100,000 miles, except that in-use testing shall not be done for a period beyond 7 years or 75,000 miles (or the equivalent) whichever first occurs.

(2) In the case of light-duty trucks of more than 6,000 lbs gvwr, the useful life for purposes of determining in-use compliance with the standards under section 7583 of this title shall be—

(A) a period of 5 years or 50,000 miles (or the equivalent) whichever first occurs in the case of standards applicable for purposes of certification at 50,000 miles; and

(B) a period of 11 years or 120,000 miles (or the equivalent) whichever first occurs in the case of standards applicable for purposes of certification at 120,000 miles, except that in-use testing shall not be done for a period beyond 7 years or 90,000 miles (or the equivalent) whichever first occurs.

(July 14, 1955, ch. 360, title II, § 242, as added Pub. L. 101-549, title II, § 229(a), Nov. 15, 1990, 104 Stat. 2513.)

**§ 7583. Standards for light-duty clean-fuel vehicles**

**(a) Exhaust standards for light-duty vehicles and certain light-duty trucks**

The standards set forth in this subsection shall apply in the case of clean-fuel vehicles which are light-duty trucks of up to 6,000 lbs. gross vehicle weight rating (gvwr) (but not including light-duty trucks of more than 3,750 lbs. loaded vehicle weight (lvw)) or light-duty vehicles:

**(1) Phase I**

Beginning with model year 1996, for the air pollutants specified in the following table, the clean-fuel vehicle standards under this section shall provide that vehicle exhaust emissions shall not exceed the levels specified in the following table:

PHASE I CLEAN FUEL VEHICLE EMISSION STANDARDS FOR LIGHT-DUTY TRUCKS OF UP TO 3,750 LBS. LVW AND UP TO 6,000 LBS. GVWR AND LIGHT-DUTY VEHICLES

Pollutant	NMOG	CO	NO <sub>x</sub>	PM	HCHO (formaldehyde)
50,000 mile standard.	0.125	3.4	0.4	.....	0.015
100,000 mile standard.	0.156	4.2	0.6	0.08*	0.018

Standards are expressed in grams per mile (gpm).

\*Standards for particulates (PM) shall apply only to diesel-fueled vehicles.

those facilities, together with the names and addresses of the persons who have been convicted of such offenses. Whenever the Administrator determines that the condition which gave rise to a conviction has been corrected, he shall promptly remove the facility and the name and address of the person concerned from the list.

SEC. 3. *Contracts, Grants, or Loans.* (a) Except as provided in section 8 of this Order, no Federal agency shall enter into any contract for the procurement of goods, materials, or services which is to be performed in whole or in part in a facility then designated by the Administrator pursuant to section 2.

(b) Except as provided in section 8 of this Order, no Federal agency authorized to extend Federal assistance by way of grant, loan, or contract shall extend such assistance in any case in which it is to be used to support any activity or program involving the use of a facility then designated by the Administrator pursuant to section 2.

SEC. 4. *Procurement, Grant, and Loan Regulations.* The Federal Procurement Regulations, the Armed Services Procurement Regulations, and to the extent necessary, any supplemental or comparable regulations issued by any agency of the Executive Branch shall, following consultation with the Administrator, be amended to require, as a condition of entering into, renewing, or extending any contract for the procurement of goods, materials, or services or extending any assistance by way of grant, loan, or contract, inclusion of a provision requiring compliance with the Air Act, the Water Act, and standards issued pursuant thereto in the facilities in which the contract is to be performed, or which are involved in the activity or program to receive assistance.

SEC. 5. *Rules and Regulations.* The Administrator shall issue such rules, regulations, standards, and guidelines as he may deem necessary or appropriate to carry out the purposes of this Order.

SEC. 6. *Cooperation and Assistance.* The head of each Federal agency shall take such steps as may be necessary to insure that all officers and employees of this agency whose duties entail compliance or comparable functions with respect to contracts, grants, and loans are familiar with the provisions of this Order. In addition to any other appropriate action, such officers and employees shall report promptly any condition in a facility which may involve noncompliance with the Air Act or the Water Act or any rules, regulations, standards, or guidelines issued pursuant to this Order to the head of the agency, who shall transmit such reports to the Administrator.

SEC. 7. *Enforcement.* The Administrator may recommend to the Department of Justice or other appropriate agency that legal proceedings be brought or other appropriate action be taken whenever he becomes aware of a breach of any provision required, under the amendments issued pursuant to section 4 of this Order, to be included in a contract or other agreement.

SEC. 8. *Exemptions—Reports to Congress.* (a) Upon a determination that the paramount interest of the United States so requires—

(1) The head of a Federal agency may exempt any contract, grant, or loan, and, following consultation with the Administrator, any class of contracts, grants or loans from the provisions of this Order. In any such case, the head of the Federal agency granting such exemption shall (A) promptly notify the Administrator of such exemption and the justification therefor; (B) review the necessity for each such exemption annually; and (C) report to the Administrator annually all such exemptions in effect. Exemptions granted pursuant to this section shall be for a period not to exceed one year. Additional exemptions may be granted for periods not to exceed one year upon the making of a new determination by the head of the Federal agency concerned.

(2) The Administrator may, by rule or regulation, exempt any or all Federal agencies from any or all of the provisions of this Order with respect to any class or classes of contracts, grants, or loans, which (A) involve

less than specified dollar amounts, or (B) have a minimal potential impact upon the environment, or (C) involve persons who are not prime contractors or direct recipients of Federal assistance by way of contracts, grants, or loans.

(b) Federal agencies shall reconsider any exemption granted under subsection (a) whenever requested to do so by the Administrator.

(c) The Administrator shall annually notify the President and the Congress of all exemptions granted, or in effect, under this Order during the preceding year.

SEC. 9. *Related Actions.* The imposition of any sanction or penalty under or pursuant to this Order shall not relieve any person of any legal duty to comply with any provisions of the Air Act or the Water Act.

SEC. 10. *Applicability.* This Order shall not apply to contracts, grants, or loans involving the use of facilities located outside the United States.

SEC. 11. *Uniformity.* Rules, regulations, standards, and guidelines issued pursuant to this order and section 508 of the Water Act [33 U.S.C. 1368] shall, to the maximum extent feasible, be uniform with regulations issued pursuant to this order, Executive Order No. 11602 of June 29, 1971 [formerly set out above], and section 306 of the Air Act [this section].

SEC. 12. *Order Superseded.* Executive Order No. 11602 of June 29, 1971, is hereby superseded.

RICHARD NIXON.

## § 7607. Administrative proceedings and judicial review

### (a) Administrative subpoenas; confidentiality; witnesses

In connection with any determination under section 7410(f) of this title, or for purposes of obtaining information under section 7521(b)(4)<sup>1</sup> or 7545(c)(3) of this title, any investigation, monitoring, reporting requirement, entry, compliance inspection, or administrative enforcement proceeding under the<sup>2</sup> chapter (including but not limited to section 7413, section 7414, section 7420, section 7429, section 7477, section 7524, section 7525, section 7542, section 7603, or section 7606 of this title),<sup>3</sup> the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for emission data, upon a showing satisfactory to the Administrator by such owner or operator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes of such owner or operator, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter, to persons carrying out the National Academy of Sciences' study and investigation provided for in section 7521(c) of this title, or when relevant in any proceeding under this chapter. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpoena served upon any person under

<sup>1</sup> See References in Text note below.

<sup>2</sup> So in original. Probably should be "this".

<sup>3</sup> So in original.



this subparagraph,<sup>4</sup> the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

**(b) Judicial review**

(1) A petition for review of action of the Administrator in promulgating any national primary or secondary ambient air quality standard, any emission standard or requirement under section 7412 of this title, any standard of performance or requirement under section 7411 of this title,<sup>3</sup> any standard under section 7521 of this title (other than a standard required to be prescribed under section 7521(b)(1) of this title), any determination under section 7521(b)(5)<sup>1</sup> of this title, any control or prohibition under section 7545 of this title, any standard under section 7571 of this title, any rule issued under section 7413, 7419, or under section 7420 of this title, or any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter may be filed only in the United States Court of Appeals for the District of Columbia. A petition for review of the Administrator's action in approving or promulgating any implementation plan under section 7410 of this title or section 7411(d) of this title, any order under section 7411(j) of this title, under section 7412 of this title, under section 7419 of this title, or under section 7420 of this title, or his action under section 1857c-10(c)(2)(A), (B), or (C) of this title (as in effect before August 7, 1977) or under regulations thereunder, or revising regulations for enhanced monitoring and compliance certification programs under section 7414(a)(3) of this title, or any other final action of the Administrator under this chapter (including any denial or disapproval by the Administrator under subchapter I) which is locally or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit. Notwithstanding the preceding sentence a petition for review of any action referred to in such sentence may be filed only in the United States Court of Appeals for the District of Columbia if such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination. Any petition for review under this subsection shall be filed within sixty days from the date notice of such promulgation, approval, or action appears in the Federal Register, except that if such petition is based solely on grounds arising after such sixtieth day, then any petition for review under this subsection shall be filed within sixty days after such grounds arise. The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect

the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule or action under this section may be filed, and shall not postpone the effectiveness of such rule or action.

(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) shall not be subject to judicial review in civil or criminal proceedings for enforcement. Where a final decision by the Administrator defers performance of any nondiscretionary statutory action to a later time, any person may challenge the deferral pursuant to paragraph (1).

**(c) Additional evidence**

In any judicial proceeding in which review is sought of a determination under this chapter required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as to<sup>5</sup> the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

**(d) Rulemaking**

(1) This subsection applies to—

(A) the promulgation or revision of any national ambient air quality standard under section 7409 of this title,

(B) the promulgation or revision of an implementation plan by the Administrator under section 7410(c) of this title,

(C) the promulgation or revision of any standard of performance under section 7411 of this title, or emission standard or limitation under section 7412(d) of this title, any standard under section 7412(f) of this title, or any regulation under section 7412(g)(1)(D) and (F)<sup>6</sup> of this title, or any regulation under section 7412(m) or (n) of this title,

(D) the promulgation of any requirement for solid waste combustion under section 7429 of this title,

(E) the promulgation or revision of any regulation pertaining to any fuel or fuel additive under section 7545 of this title,

(F) the promulgation or revision of any aircraft emission standard under section 7571 of this title,

(G) the promulgation or revision of any regulation under subchapter IV-A (relating to control of acid deposition),

(H) promulgation or revision of regulations pertaining to primary nonferrous smelter or-

<sup>5</sup> So in original. The word "to" probably should not appear.

<sup>6</sup> So in original. There are no subpars. (D) and (F) of section 7412(g)(1) of this title.

<sup>4</sup> So in original. Probably should be "subsection,".



ders under section 7419 of this title (but not including the granting or denying of any such order),

(I) promulgation or revision of regulations under subchapter VI (relating to stratosphere and ozone protection),

(J) promulgation or revision of regulations under part C of subchapter I (relating to prevention of significant deterioration of air quality and protection of visibility),

(K) promulgation or revision of regulations under section 7521 of this title and test procedures for new motor vehicles or engines under section 7525 of this title, and the revision of a standard under section 7521(a)(3) of this title,

(L) promulgation or revision of regulations for noncompliance penalties under section 7420 of this title,

(M) promulgation or revision of any regulations promulgated under section 7541 of this title (relating to warranties and compliance by vehicles in actual use),

(N) action of the Administrator under section 7426 of this title (relating to interstate pollution abatement),

(O) the promulgation or revision of any regulation pertaining to consumer and commercial products under section 7511b(e) of this title,

(P) the promulgation or revision of any regulation pertaining to field citations under section 7413(d)(3) of this title,

(Q) the promulgation or revision of any regulation pertaining to urban buses or the clean-fuel vehicle, clean-fuel fleet, and clean fuel programs under part C of subchapter II,

(R) the promulgation or revision of any regulation pertaining to nonroad engines or nonroad vehicles under section 7547 of this title,

(S) the promulgation or revision of any regulation relating to motor vehicle compliance program fees under section 7552 of this title,

(T) the promulgation or revision of any regulation under subchapter IV-A (relating to acid deposition),

(U) the promulgation or revision of any regulation under section 7511b(f) of this title pertaining to marine vessels, and

(V) such other actions as the Administrator may determine.

The provisions of section 553 through 557 and section 706 of title 5 shall not, except as expressly provided in this subsection, apply to actions to which this subsection applies. This subsection shall not apply in the case of any rule or circumstance referred to in subparagraphs (A) or (B) of subsection 553(b) of title 5.

(2) Not later than the date of proposal of any action to which this subsection applies, the Administrator shall establish a rulemaking docket for such action (hereinafter in this subsection referred to as a "rule"). Whenever a rule applies only within a particular State, a second (identical) docket shall be simultaneously established in the appropriate regional office of the Environmental Protection Agency.

(3) In the case of any rule to which this subsection applies, notice of proposed rulemaking shall be published in the Federal Register, as provided under section 553(b) of title 5, shall be

accompanied by a statement of its basis and purpose and shall specify the period available for public comment (hereinafter referred to as the "comment period"). The notice of proposed rulemaking shall also state the docket number, the location or locations of the docket, and the times it will be open to public inspection. The statement of basis and purpose shall include a summary of—

(A) the factual data on which the proposed rule is based;

(B) the methodology used in obtaining the data and in analyzing the data; and

(C) the major legal interpretations and policy considerations underlying the proposed rule.

The statement shall also set forth or summarize and provide a reference to any pertinent findings, recommendations, and comments by the Scientific Review Committee established under section 7409(d) of this title and the National Academy of Sciences, and, if the proposal differs in any important respect from any of these recommendations, an explanation of the reasons for such differences. All data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule.

(4)(A) The rulemaking docket required under paragraph (2) shall be open for inspection by the public at reasonable times specified in the notice of proposed rulemaking. Any person may copy documents contained in the docket. The Administrator shall provide copying facilities which may be used at the expense of the person seeking copies, but the Administrator may waive or reduce such expenses in such instances as the public interest requires. Any person may request copies by mail if the person pays the expenses, including personnel costs to do the copying.

(B)(i) Promptly upon receipt by the agency, all written comments and documentary information on the proposed rule received from any person for inclusion in the docket during the comment period shall be placed in the docket. The transcript of public hearings, if any, on the proposed rule shall also be included in the docket promptly upon receipt from the person who transcribed such hearings. All documents which become available after the proposed rule has been published and which the Administrator determines are of central relevance to the rulemaking shall be placed in the docket as soon as possible after their availability.

(ii) The drafts of proposed rules submitted by the Administrator to the Office of Management and Budget for any interagency review process prior to proposal of any such rule, all documents accompanying such drafts, and all written comments thereon by other agencies and all written responses to such written comments by the Administrator shall be placed in the docket no later than the date of proposal of the rule. The drafts of the final rule submitted for such review process prior to promulgation and all such written comments thereon, all documents accompanying such drafts, and written responses thereto shall be placed in the docket no later than the date of promulgation.

(5) In promulgating a rule to which this subsection applies (i) the Administrator shall allow any person to submit written comments, data, or documentary information; (ii) the Administrator shall give interested persons an opportunity for the oral presentation of data, views, or arguments, in addition to an opportunity to make written submissions; (iii) a transcript shall be kept of any oral presentation; and (iv) the Administrator shall keep the record of such proceeding open for thirty days after completion of the proceeding to provide an opportunity for submission of rebuttal and supplementary information.

(6)(A) The promulgated rule shall be accompanied by (i) a statement of basis and purpose like that referred to in paragraph (3) with respect to a proposed rule and (ii) an explanation of the reasons for any major changes in the promulgated rule from the proposed rule.

(B) The promulgated rule shall also be accompanied by a response to each of the significant comments, criticisms, and new data submitted in written or oral presentations during the comment period.

(C) The promulgated rule may not be based (in part or whole) on any information or data which has not been placed in the docket as of the date of such promulgation.

(7)(A) The record for judicial review shall consist exclusively of the material referred to in paragraph (3), clause (i) of paragraph (4)(B), and subparagraphs (A) and (B) of paragraph (6).

(B) Only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit (as provided in subsection (b)). Such reconsideration shall not postpone the effectiveness of the rule. The effectiveness of the rule may be stayed during such reconsideration, however, by the Administrator or the court for a period not to exceed three months.

(8) The sole forum for challenging procedural determinations made by the Administrator under this subsection shall be in the United States court of appeals for the appropriate circuit (as provided in subsection (b)) at the time of the substantive review of the rule. No interlocutory appeals shall be permitted with respect to such procedural determinations. In reviewing alleged procedural errors, the court may invalidate the rule only if the errors were so serious and related to matters of such central relevance to the rule that there is a substantial likelihood

that the rule would have been significantly changed if such errors had not been made.

(9) In the case of review of any action of the Administrator to which this subsection applies, the court may reverse any such action found to be—

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

(B) contrary to constitutional right, power, privilege, or immunity;

(C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; or

(D) without observance of procedure required by law, if (i) such failure to observe such procedure is arbitrary or capricious, (ii) the requirement of paragraph (7)(B) has been met, and (iii) the condition of the last sentence of paragraph (8) is met.

(10) Each statutory deadline for promulgation of rules to which this subsection applies which requires promulgation less than six months after date of proposal may be extended to not more than six months after date of proposal by the Administrator upon a determination that such extension is necessary to afford the public, and the agency, adequate opportunity to carry out the purposes of this subsection.

(11) The requirements of this subsection shall take effect with respect to any rule the proposal of which occurs after ninety days after August 7, 1977.

#### **(e) Other methods of judicial review not authorized**

Nothing in this chapter shall be construed to authorize judicial review of regulations or orders of the Administrator under this chapter, except as provided in this section.

#### **(f) Costs**

In any judicial proceeding under this section, the court may award costs of litigation (including reasonable attorney and expert witness fees) whenever it determines that such award is appropriate.

#### **(g) Stay, injunction, or similar relief in proceedings relating to noncompliance penalties**

In any action respecting the promulgation of regulations under section 7420 of this title or the administration or enforcement of section 7420 of this title no court shall grant any stay, injunctive, or similar relief before final judgment by such court in such action.

#### **(h) Public participation**

It is the intent of Congress that, consistent with the policy of subchapter II of chapter 5 of title 5, the Administrator in promulgating any regulation under this chapter, including a regulation subject to a deadline, shall ensure a reasonable period for public participation of at least 30 days, except as otherwise expressly provided in section<sup>7</sup> 7407(d), 7502(a), 7511(a) and (b), and 7512(a) and (b) of this title.

(July 14, 1955, ch. 360, title III, §307, as added Pub. L. 91-604, §12(a), Dec. 31, 1970, 84 Stat. 1707; amended Pub. L. 92-157, title III, §302(a), Nov. 18,

<sup>7</sup> So in original. Probably should be "sections".

1971, 85 Stat. 464; Pub. L. 93-319, §6(c), June 22, 1974, 88 Stat. 259; Pub. L. 95-95, title III, §§303(d), 305(a), (c), (f)–(h), Aug. 7, 1977, 91 Stat. 772, 776, 777; Pub. L. 95-190, §14(a)(79), (80), Nov. 16, 1977, 91 Stat. 1404; Pub. L. 101-549, title I, §§108(p), 110(5), title III, §302(g), (h), title VII, §§702(c), 703, 706, 707(h), 710(b), Nov. 15, 1990, 104 Stat. 2469, 2470, 2574, 2681–2684.)

### Editorial Notes

#### REFERENCES IN TEXT

Section 7521(b)(4) of this title, referred to in subsec. (a), was repealed by Pub. L. 101-549, title II, §230(2), Nov. 15, 1990, 104 Stat. 2529.

Section 7521(b)(5) of this title, referred to in subsec. (b)(1), was repealed by Pub. L. 101-549, title II, §230(3), Nov. 15, 1990, 104 Stat. 2529.

Section 1857c-10(c)(2)(A), (B), or (C) of this title (as in effect before August 7, 1977), referred to in subsec. (b)(1), was in the original “section 119(c)(2)(A), (B), or (C) (as in effect before the date of enactment of the Clean Air Act Amendments of 1977)”, meaning section 119 of act July 14, 1955, ch. 360, title I, as added June 22, 1974, Pub. L. 93-319, §3, 88 Stat. 248, (which was classified to section 1857c-10 of this title) as in effect prior to the enactment of Pub. L. 95-95, Aug. 7, 1977, 91 Stat. 691, effective Aug. 7, 1977. Section 112(b)(1) of Pub. L. 95-95 repealed section 119 of act July 14, 1955, ch. 360, title I, as added by Pub. L. 93-319, and provided that all references to such section 119 in any subsequent enactment which supersedes Pub. L. 93-319 shall be construed to refer to section 113(d) of the Clean Air Act and to paragraph (5) thereof in particular which is classified to subsec. (d)(5) of section 7413 of this title. Section 7413(d) of this title was subsequently amended generally by Pub. L. 101-549, title VII, §701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, no longer relates to final compliance orders. Section 117(b) of Pub. L. 95-95 added a new section 119 of act July 14, 1955, which is classified to section 7419 of this title.

Part C of subchapter I, referred to in subsec. (d)(1)(J), was in the original “subtitle C of title I”, and was translated as reading “part C of title I” to reflect the probable intent of Congress, because title I does not contain subtitles.

#### CODIFICATION

In subsec. (h), “subchapter II of chapter 5 of title 5” was substituted for “the Administrative Procedures Act” on authority of Pub. L. 89-554, §7(b), Sept. 6, 1966, 80 Stat. 631, the first section of which enacted Title 5, Government Organization and Employees.

Section was formerly classified to section 1857h-5 of this title.

#### PRIOR PROVISIONS

A prior section 307 of act July 14, 1955, was renumbered section 314 by Pub. L. 91-604 and is classified to section 7614 of this title.

Another prior section 307 of act July 14, 1955, ch. 360, title III, formerly §14, as added Dec. 17, 1963, Pub. L. 88-206, §1, 77 Stat. 401, was renumbered section 307 by Pub. L. 89-272, renumbered section 310 by Pub. L. 90-148, and renumbered section 317 by Pub. L. 91-604, and is set out as a Short Title note under section 7401 of this title.

#### AMENDMENTS

1990—Subsec. (a). Pub. L. 101-549, §703, struck out par. (1) designation at beginning, inserted provisions authorizing issuance of subpoenas and administration of oaths for purposes of investigations, monitoring, reporting requirements, entries, compliance inspections, or administrative enforcement proceedings under this chapter, and struck out “or section 7521(b)(5)” after “section 7410(f)”.

Subsec. (b)(1). Pub. L. 101-549, §706(2), which directed amendment of second sentence by striking “under sec-

tion 7413(d) of this title” immediately before “under section 7419 of this title”, was executed by striking “under section 7413(d) of this title,” before “under section 7419 of this title”, to reflect the probable intent of Congress.

Pub. L. 101-549, §706(1), inserted at end: “The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule or action under this section may be filed, and shall not postpone the effectiveness of such rule or action.”

Pub. L. 101-549, §702(c), inserted “or revising regulations for enhanced monitoring and compliance certification programs under section 7414(a)(3) of this title,” before “or any other final action of the Administrator”.

Pub. L. 101-549, §302(g), substituted “section 7412” for “section 7412(c)”.

Subsec. (b)(2). Pub. L. 101-549, §707(h), inserted sentence at end authorizing challenge to deferrals of performance of nondiscretionary statutory actions.

Subsec. (d)(1)(C). Pub. L. 101-549, §110(5)(A), amended subpar. (C) generally. Prior to amendment, subpar. (C) read as follows: “the promulgation or revision of any standard of performance under section 7411 of this title or emission standard under section 7412 of this title.”.

Subsec. (d)(1)(D), (E). Pub. L. 101-549, §302(h), added subpar. (D) and redesignated former subpar. (D) as (E). Former subpar. (E) redesignated (F).

Subsec. (d)(1)(F). Pub. L. 101-549, §302(h), redesignated subpar. (E) as (F). Former subpar. (F) redesignated (G).

Pub. L. 101-549, §110(5)(B), amended subpar. (F) generally. Prior to amendment, subpar. (F) read as follows: “promulgation or revision of regulations pertaining to orders for coal conversion under section 7413(d)(5) of this title (but not including orders granting or denying any such orders).”.

Subsec. (d)(1)(G), (H). Pub. L. 101-549, §302(h), redesignated subpars. (F) and (G) as (G) and (H), respectively. Former subpar. (H) redesignated (I).

Subsec. (d)(1)(I). Pub. L. 101-549, §710(b), which directed that subpar. (H) be amended by substituting “subchapter VI” for “part B of subchapter I”, was executed by making the substitution in subpar. (I), to reflect the probable intent of Congress and the intervening redesignation of subpar. (H) as (I) by Pub. L. 101-549, §302(h), see below.

Pub. L. 101-549, §302(h), redesignated subpar. (H) as (I). Former subpar. (I) redesignated (J).

Subsec. (d)(1)(J) to (M). Pub. L. 101-549, §302(h), redesignated subpars. (I) to (L) as (J) to (M), respectively. Former subpar. (M) redesignated (N).

Subsec. (d)(1)(N). Pub. L. 101-549, §302(h), redesignated subpar. (M) as (N). Former subpar. (N) redesignated (O).

Pub. L. 101-549, §110(5)(C), added subpar. (N) and redesignated former subpar. (N) as (U).

Subsec. (d)(1)(O) to (T). Pub. L. 101-549, §302(h), redesignated subpars. (N) to (S) as (O) to (T), respectively. Former subpar. (T) redesignated (U).

Pub. L. 101-549, §110(5)(C), added subpars. (O) to (T).

Subsec. (d)(1)(U). Pub. L. 101-549, §302(h), redesignated subpar. (T) as (U). Former subpar. (U) redesignated (V).

Pub. L. 101-549, §110(5)(C), redesignated former subpar. (N) as (U).

Subsec. (d)(1)(V). Pub. L. 101-549, §302(h), redesignated subpar. (U) as (V).

Subsec. (h). Pub. L. 101-549, §108(p), added subsec. (h). 1977—Subsec. (b)(1). Pub. L. 95-190 in text relating to filing of petitions for review in the United States Court of Appeals for the District of Columbia inserted provision respecting requirements under sections 7411 and 7412 of this title, and substituted provisions authorizing review of any rule issued under section 7413, 7419, or 7420 of this title, for provisions authorizing review of any rule or order issued under section 7420 of this title, relating to noncompliance penalties, and in text relating to filing of petitions for review in the United States Court of Appeals for the appropriate circuit inserted



provision respecting review under section 7411(j), 7412(c), 7413(d), or 7419 of this title, provision authorizing review under section 1857c-10(c)(2)(A), (B), or (C) to the period prior to Aug. 7, 1977, and provisions authorizing review of denials or disapprovals by the Administrator under subchapter I of this chapter.

Pub. L. 95-95, §305(c), (h), inserted rules or orders issued under section 7420 of this title (relating to non-compliance penalties) and any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter to the enumeration of actions of the Administrator for which a petition for review may be filed only in the United States Court of Appeals for the District of Columbia, added the approval or promulgation by the Administrator of orders under section 7420 of this title, or any other final action of the Administrator under this chapter which is locally or regionally applicable to the enumeration of actions by the Administrator for which a petition for review may be filed only in the United States Court of Appeals for the appropriate circuit, inserted provision that petitions otherwise capable of being filed in the Court of Appeals for the appropriate circuit may be filed only in the Court of Appeals for the District of Columbia if the action is based on a determination of nationwide scope, and increased from 30 days to 60 days the period during which the petition must be filed.

Subsec. (d). Pub. L. 95-95, §305(a), added subsec. (d).

Subsec. (e). Pub. L. 95-95, §303(d), added subsec. (e).

Subsec. (f). Pub. L. 95-95, §305(f), added subsec. (f).

Subsec. (g). Pub. L. 95-95, §305(g), added subsec. (g).

1974—Subsec. (b)(1). Pub. L. 93-319 inserted reference to the Administrator's action under section 1857c-10(c)(2)(A), (B), or (C) of this title or under regulations thereunder and substituted reference to the filing of a petition within 30 days from the date of promulgation, approval, or action for reference to the filing of a petition within 30 days from the date of promulgation or approval.

1971—Subsec. (a)(1). Pub. L. 92-157 substituted reference to section “7545(c)(3)” for “7545(c)(4)” of this title.

### Statutory Notes and Related Subsidiaries

#### EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

#### TERMINATION OF ADVISORY COMMITTEES

Advisory committees established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by the Congress, its duration is otherwise provided for by law. See section 1013 of Title 5, Government Organization and Employees.

#### PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95-95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95-95, see section 406(a) of Pub. L.

95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

#### MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

### § 7608. Mandatory licensing

Whenever the Attorney General determines, upon application of the Administrator—

(1) that—

(A) in the implementation of the requirements of section 7411, 7412, or 7521 of this title, a right under any United States letters patent, which is being used or intended for public or commercial use and not otherwise reasonably available, is necessary to enable any person required to comply with such limitation to so comply, and

(B) there are no reasonable alternative methods to accomplish such purpose, and

(2) that the unavailability of such right may result in a substantial lessening of competition or tendency to create a monopoly in any line of commerce in any section of the country,

the Attorney General may so certify to a district court of the United States, which may issue an order requiring the person who owns such patent to license it on such reasonable terms and conditions as the court, after hearing, may determine. Such certification may be made to the district court for the district in which the person owning the patent resides, does business, or is found.

(July 14, 1955, ch. 360, title III, §308, as added Pub. L. 91-604, §12(a), Dec. 31, 1970, 84 Stat. 1708.)

#### Editorial Notes

##### CODIFICATION

Section was formerly classified to section 1857h-6 of this title.

##### PRIOR PROVISIONS

A prior section 308 of act July 14, 1955, was renumbered section 315 by Pub. L. 91-604 and is classified to section 7615 of this title.

### Statutory Notes and Related Subsidiaries

#### MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect



## Editorial Notes

### REFERENCES IN TEXT

This subchapter, referred to in introductory provisions, was in the original “this title”, meaning title III of Pub. L. 102-486, Oct. 24, 1992, 106 Stat. 2866, which enacted this subchapter, amended section 6374 of this title, and repealed provisions set out as a note under section 6374 of this title. For complete classification of title III to the Code, see Tables.

Subchapter II, referred to in introductory provisions, was in the original “title IV”, meaning title IV of Pub. L. 102-486, Oct. 24, 1992, 106 Stat. 2875, which enacted subchapter II (§13231 et seq.) of this chapter, amended sections 6374a and 6374b and former section 6374c of this title and sections 717, 717a, 2001, 2002, 2006, and 2013 of Title 15, Commerce and Trade, enacted provisions set out as notes under former section 79b and section 717 of Title 15, and repealed provisions set out as a note under section 717c of Title 15. For complete classification of title IV to the Code, see Tables.

Paragraphs (7) and (8) of section 32901(a) of title 49, referred to in pars. (6)(A) and (8)(A), were redesignated as pars. (8) and (9), respectively, and a new par. (7) was enacted by Pub. L. 110-140, title I, §103(a)(2), (3), Dec. 19, 2007, 121 Stat. 1501.

The Outer Continental Shelf Lands Act, referred to in par. (7), is act Aug. 7, 1953, ch. 345, 67 Stat. 462, which is classified generally to subchapter III (§1331 et seq.) of chapter 29 of Title 43, Public Lands. For complete classification of this Act to the Code, see Short Title note set out under section 1301 of Title 43 and Tables.

### CODIFICATION

In pars. (6)(A) and (8)(A), “section 32901(a)(7) of title 49” substituted for “section 513(h)(1)(C) of the Motor Vehicle Information and Cost Savings Act” and “section 32901(a)(8) of title 49” substituted for “section 513(h)(1)(D) of the Motor Vehicle Information and Cost Savings Act” on authority of Pub. L. 103-272, §6(b), July 5, 1994, 108 Stat. 1378, the first section of which enacted subtitles II, III, and V to X of Title 49, Transportation.

### AMENDMENTS

2008—Par. (3). Pub. L. 110-181 designated existing provisions as subpar. (A), inserted par. and subpar. headings, substituted “The term” for “the term”, and added subpar. (B).

2005—Par. (9)(E). Pub. L. 109-58 inserted “, including vehicles directly used in the emergency repair of transmission lines and in the restoration of electricity service following power outages, as determined by the Secretary” before semicolon at end.

2000—Par. (2). Pub. L. 106-554 inserted “, including liquid fuels domestically produced from natural gas” after “natural gas”.

## § 13212. Minimum Federal fleet requirement

### (a) General requirements

(1) The Federal Government shall acquire at least—

- (A) 5,000 light duty alternative fueled vehicles in fiscal year 1993;
- (B) 7,500 light duty alternative fueled vehicles in fiscal year 1994; and
- (C) 10,000 light duty alternative fueled vehicles in fiscal year 1995.

(2) The Secretary shall allocate the acquisitions necessary to meet the requirements under paragraph (1).

### (b) Percentage requirements

(1) Of the total number of vehicles acquired by a Federal fleet, at least—

- (A) 25 percent in fiscal year 1996;

- (B) 33 percent in fiscal year 1997;
- (C) 50 percent in fiscal year 1998; and
- (D) 75 percent in fiscal year 1999 and thereafter,

shall be alternative fueled vehicles.

(2) The Secretary, in consultation with the Administrator of General Services where appropriate, may permit a Federal fleet to acquire a smaller percentage than is required in paragraph (1), so long as the aggregate percentage acquired by all Federal fleets is at least equal to the required percentage.

(3) For purposes of this subsection, the term “Federal fleet” means 20 or more light duty motor vehicles, located in a metropolitan statistical area or consolidated metropolitan statistical area, as established by the Bureau of the Census, with a 1980 population of more than 250,000, that are centrally fueled or capable of being centrally fueled and are owned, operated, leased, or otherwise controlled by or assigned to any Federal executive department, military department, Government corporation, independent establishment, or executive agency, the United States Postal Service, the Congress, the courts of the United States, or the Executive Office of the President. Such term does not include—

- (A) motor vehicles held for lease or rental to the general public;
- (B) motor vehicles used for motor vehicle manufacturer product evaluations or tests;
- (C) law enforcement vehicles;
- (D) emergency vehicles;
- (E) motor vehicles acquired and used for military purposes that the Secretary of Defense has certified to the Secretary must be exempt for national security reasons; or
- (F) nonroad vehicles, including farm and construction vehicles.

### (c) Allocation of incremental costs

The General Services Administration and any other Federal agency that procures motor vehicles for distribution to other Federal agencies shall allocate the incremental cost of alternative fueled vehicles over the cost of comparable gasoline vehicles across the entire fleet of motor vehicles distributed by such agency.

### (d) Application of requirements

The provisions of section 6374 of this title relating to the Federal acquisition of alternative fueled vehicles shall apply to the acquisition of vehicles pursuant to this section.

### (e) Resale

The Administrator of General Services shall take all feasible steps to ensure that all alternative fueled vehicles sold by the Federal Government shall remain alternative fueled vehicles at time of sale.

### (f) Vehicle emission requirements

#### (1) Definitions

In this subsection:

#### (A) Federal agency

The term “Federal agency” does not include any office of the legislative branch, except that it does include the House of Representatives with respect to an acquisition described in paragraph (2)(C).

**(B) Medium duty passenger vehicle**

The term “medium duty passenger vehicle” has the meaning given that term<sup>1</sup> section 523.2 of title 49 of the Code of Federal Regulations, as in effect on December 19, 2007.

**(C) Member’s Representational Allowance**

The term “Member’s Representational Allowance” means the allowance described in section 5341(a) of title 2.

**(2) Prohibition****(A) In general**

Except as provided in subparagraph (B), no Federal agency shall acquire a light duty motor vehicle or medium duty passenger vehicle that is not a low greenhouse gas emitting vehicle.

**(B) Exception**

The prohibition in subparagraph (A) shall not apply to acquisition of a vehicle if the head of the agency certifies in writing, in a separate certification for each individual vehicle purchased, either—

(i) that no low greenhouse gas emitting vehicle is available to meet the functional needs of the agency and details in writing the functional needs that could not be met with a low greenhouse gas emitting vehicle; or

(ii) that the agency has taken specific alternative more cost-effective measures to reduce petroleum consumption that—

(I) have reduced a measured and verified quantity of greenhouse gas emissions equal to or greater than the quantity of greenhouse gas reductions that would have been achieved through acquisition of a low greenhouse gas emitting vehicle over the lifetime of the vehicle; or

(II) will reduce each year a measured and verified quantity of greenhouse gas emissions equal to or greater than the quantity of greenhouse gas reductions that would have been achieved each year through acquisition of a low greenhouse gas emitting vehicle.

**(C) Special rule for vehicles provided by funds contained in Members’ Representational Allowance**

This paragraph shall apply to the acquisition of a light duty motor vehicle or medium duty passenger vehicle using any portion of a Member’s Representational Allowance, including an acquisition under a long-term lease.

**(3) Guidance****(A) In general**

Each year, the Administrator of the Environmental Protection Agency shall issue guidance identifying the makes and model numbers of vehicles that are low greenhouse gas emitting vehicles.

**(B) Consideration**

In identifying vehicles under subparagraph (A), the Administrator shall take into ac-

count the most stringent standards for vehicle greenhouse gas emissions applicable to and enforceable against motor vehicle manufacturers for vehicles sold anywhere in the United States.

**(C) Requirement**

The Administrator shall not identify any vehicle as a low greenhouse gas emitting vehicle if the vehicle emits greenhouse gases at a higher rate than such standards allow for the manufacturer’s fleet average grams per mile of carbon dioxide-equivalent emissions for that class of vehicle, taking into account any emissions allowances and adjustment factors such standards provide.

**(g) Authorization of appropriations**

There are authorized to be appropriated for carrying out this section, such sums as may be necessary for fiscal years 1993 through 1998, to remain available until expended.

(Pub. L. 102-486, title III, §303, Oct. 24, 1992, 106 Stat. 2871; Pub. L. 109-58, title VII, §702, Aug. 8, 2005, 119 Stat. 815; Pub. L. 110-140, title I, §141, Dec. 19, 2007, 121 Stat. 1517.)

**Editorial Notes****AMENDMENTS**

2007—Subsecs. (f), (g). Pub. L. 110-140 added subsec. (f) and redesignated former subsec. (f) as (g).

2005—Subsec. (c). Pub. L. 109-58 substituted “shall” for “may”.

**Statutory Notes and Related Subsidiaries****EFFECTIVE DATE OF 2007 AMENDMENT**

Amendment by Pub. L. 110-140 effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110-140, set out as an Effective Date note under section 1824 of Title 2, The Congress.

**Executive Documents****EXECUTIVE ORDER NO. 12844**

Ex. Ord. No. 12844, Apr. 21, 1993, 58 F.R. 21885, as amended by Ex. Ord. No. 12974, §3(b), Sept. 29, 1995, 60 F.R. 51876, which required the Federal Government to institute a Federal fleet vehicle acquisition program and established the Federal Fleet Conversion Task Force to advise on implementation of the program, was revoked by Ex. Ord. No. 13031, §9, Dec. 13, 1996, 61 F.R. 66531, formerly set out below.

**EXECUTIVE ORDER NO. 13031**

Ex. Ord. No. 13031, Dec. 13, 1996, 61 F.R. 66529, which provided that the Federal Government exercise leadership in the use of alternative fueled vehicles, was revoked by Ex. Ord. No. 13149, §501, Apr. 21, 2000, 65 F.R. 24610, formerly set out below.

**EXECUTIVE ORDER NO. 13149**

Ex. Ord. No. 13149, Apr. 21, 2000, 65 F.R. 24607, which directed the Federal Government to exercise leadership in the reduction of petroleum consumption through improvements in fleet fuel efficiency and the use of alternative fuel vehicles and alternative fuels, was revoked by Ex. Ord. No. 13423, §11(a)(v), Jan. 24, 2007, 72 F.R. 3923, formerly set out in a note under section 4321 of this title.

**§ 13213. Refueling****(a) In general**

Federal agencies shall, to the maximum extent practicable, arrange for the fueling of alter-

<sup>1</sup> So in original. The word “in” probably should appear after “term”.

- (1) meet all applicable Federal and State permitting requirements;
- (2) are most likely to be successful; and
- (3) are located in local markets that have the greatest need for the facility.

**(d) Maturity**

A loan guaranteed under subsection (a) shall have a maturity of not more than 20 years.

**(e) Terms and conditions**

The loan agreement for a loan guaranteed under subsection (a) shall provide that no provision of the loan agreement may be amended or waived without the consent of the Secretary.

**(f) Assurance of repayment**

The Secretary shall require that an applicant for a loan guarantee under subsection (a) provide an assurance of repayment in the form of a performance bond, insurance, collateral, or other means acceptable to the Secretary in an amount equal to not less than 20 percent of the amount of the loan.

**(g) Guarantee fee**

The recipient of a loan guarantee under subsection (a) shall pay the Secretary an amount determined by the Secretary to be sufficient to cover the administrative costs of the Secretary relating to the loan guarantee.

**(h) Full faith and credit**

The full faith and credit of the United States is pledged to the payment of all guarantees made under this section. Any such guarantee made by the Secretary shall be conclusive evidence of the eligibility of the loan for the guarantee with respect to principal and interest. The validity of the guarantee shall be incontestable in the hands of a holder of the guaranteed loan.

**(i) Reports**

Until each guaranteed loan under this section has been repaid in full, the Secretary shall annually submit to Congress a report on the activities of the Secretary under this section.

**(j) Authorization of appropriations**

There are authorized to be appropriated such sums as are necessary to carry out this section.

**(k) Termination of authority**

The authority of the Secretary to issue a loan guarantee under subsection (a) terminates on the date that is 10 years after December 19, 2007.

(Pub. L. 110-140, title I, § 135, Dec. 19, 2007, 121 Stat. 1513.)

**Statutory Notes and Related Subsidiaries**

**EFFECTIVE DATE**

Section effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110-140, set out as a note under section 1824 of Title 2, The Congress.

**§ 17013. Advanced technology vehicles manufacturing incentive program**

**(a) Definitions**

In this section:

**(1) Advanced technology vehicle**

The term “advanced technology vehicle” means—

(A) an ultra efficient vehicle or a light duty vehicle that meets—

(i) the Bin 5 Tier II emission standard established in regulations issued by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act (42 U.S.C. 7521(i)), or a lower-numbered Bin emission standard;

(ii) any new emission standard in effect for fine particulate matter prescribed by the Administrator under that Act (42 U.S.C. 7401 et seq.); and

(iii) at least 125 percent of the average base year combined fuel economy for vehicles with substantially similar attributes;

(B) a medium duty vehicle or a heavy duty vehicle that exceeds 125 percent of the greenhouse gas emissions and fuel efficiency standards established by the final rule of the Environmental Protection Agency entitled “Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2” (81 Fed. Reg. 73478 (October 25, 2016));

(C) a train or locomotive;

(D) a maritime vessel;

(E) an aircraft; and

(F) hyperloop technology.

**(2) Combined fuel economy**

The term “combined fuel economy” means—

(A) the combined city/highway miles per gallon values, as reported in accordance with section 32904 of title 49; and

(B) in the case of an electric drive vehicle with the ability to recharge from an off-board source, the reported mileage, as determined in a manner consistent with the Society of Automotive Engineers recommended practice for that configuration or a similar practice recommended by the Secretary.

**(3) Engineering integration costs**

The term “engineering integration costs” includes the cost of engineering tasks relating to—

(A) incorporating qualifying components into the design of advanced technology vehicles; and

(B) designing tooling and equipment and developing manufacturing processes and material suppliers for production facilities that produce qualifying components or advanced technology vehicles.

**(4) Qualifying components**

The term “qualifying components” means components that the Secretary determines to be—

(A) designed for advanced technology vehicles; and

(B) installed for the purpose of meeting the performance requirements of advanced technology vehicles.

**(5) Ultra efficient vehicle**

The term “ultra efficient vehicle” means a fully closed compartment vehicle designed to carry at least 2 adult passengers that achieves—

(A) at least 75 miles per gallon while operating on gasoline or diesel fuel;

(B) at least 75 miles per gallon equivalent while operating as a hybrid electric-gasoline or electric-diesel vehicle; or

(C) at least 75 miles per gallon equivalent while operating as a fully electric vehicle.

**(b) Advanced vehicles manufacturing facility**

The Secretary shall provide facility funding awards under this section to automobile manufacturers, ultra efficient vehicle manufacturers, advanced technology vehicle manufacturers, and component suppliers to pay not more than 30 percent of the cost of—

(1) reequipping, expanding, or establishing a manufacturing facility in the United States to produce—

(A) qualifying advanced technology vehicles;

(B) qualifying components; or

(C) ultra efficient vehicles; and

(2) engineering integration performed in the United States of qualifying vehicles, ultra efficient vehicles, and qualifying components.

**(c) Period of availability**

An award under subsection (b) shall apply to—

(1) facilities and equipment placed in service before December 30, 2020; and

(2) engineering integration costs incurred during the period beginning on December 19, 2007, and ending on December 30, 2020.

**(d) Direct loan program**

**(1) In general**

Not later than 1 year after December 19, 2007, and subject to the availability of appropriated funds, the Secretary shall carry out a program to provide loans to eligible individuals and entities (as determined by the Secretary) for the costs of activities described in subsection (b). The loans shall be made through the Federal Financing Bank, with the full faith and credit of the United States Government on the principal and interest. The full credit subsidy shall be paid by the Secretary using appropriated funds.

**(2) Application**

An applicant for a loan under this subsection shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require, including a written assurance that—

(A) all laborers and mechanics employed by contractors or subcontractors during construction, alteration, or repair that is financed, in whole or in part, by a loan under this section shall be paid wages at rates not less than those prevailing on similar construction in the locality, as determined by the Secretary of Labor in accordance with sections 3141–3144, 3146, and 3147 of title 40; and

(B) the Secretary of Labor shall, with respect to the labor standards described in this paragraph, have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (5 U.S.C. App.) and section 3145 of title 40.

**(3) Selection of eligible projects**

**(A) In general**

The Secretary shall select eligible projects to receive loans under this subsection if the Secretary determines that—

(i) the loan recipient—

(I) has a reasonable prospect of repaying the principal and interest on the loan;

(II) will provide sufficient information to the Secretary for the Secretary to ensure that the qualified investment is expended efficiently and effectively; and

(III) has met such other criteria as may be established and published by the Secretary; and

(ii) the amount of the loan (when combined with amounts available to the loan recipient from other sources) will be sufficient to carry out the project.

**(B) Reasonable prospect of repayment**

The Secretary shall base a determination of whether there is a reasonable prospect of repayment of the principal and interest on a loan under subparagraph (A)(i)(I) on a comprehensive evaluation of whether the loan recipient has a reasonable prospect of repaying the principal and interest, including, as applicable, an evaluation of—

(i) the strength of the contractual terms of the eligible project (if commercially reasonably available);

(ii) the forecast of noncontractual cash flows supported by market projections from reputable sources, as determined by the Secretary;

(iii) cash sweeps and other structure enhancements;

(iv) the projected financial strength of the loan recipient—

(I) at the time of loan close; and

(II) throughout the loan term after the project is completed;

(v) the financial strength of the investors and strategic partners of the loan recipient, if applicable; and

(vi) other financial metrics and analyses that are relied on by the private lending community and nationally recognized credit rating agencies, as determined appropriate by the Secretary.

**(4) Rates, terms, and repayment of loans**

A loan provided under this subsection—

(A) shall have an interest rate that, as of the date on which the loan is made, is equal to the cost of funds to the Department of the Treasury for obligations of comparable maturity;

(B) shall have a term equal to the lesser of—

(i) the projected life, in years, of the eligible project to be carried out using funds from the loan, as determined by the Secretary; and<sup>1</sup>

(ii) 25 years;

(C) may be subject to a deferral in repayment for not more than 5 years after the

<sup>1</sup> So in original. Probably should be “or”.



date on which the eligible project carried out using funds from the loan first begins operations, as determined by the Secretary;

(D) shall be made by the Federal Financing Bank; and

(E) shall be subject to the condition that the loan is not subordinate to other financing.

**(5) Conflicts of interest**

For each eligible project selected to receive a loan under this subsection, the Secretary shall certify that political influence did not impact the selection of the eligible project.

**(e) Improvement**

Not later than 60 days after September 30, 2008, the Secretary shall promulgate an interim final rule establishing regulations that the Secretary deems necessary to administer this section and any loans made by the Secretary pursuant to this section. Such interim final rule shall require that, in order for an automobile manufacturer to be eligible for an award or loan under this section during a particular year, the adjusted average fuel economy of the manufacturer for light duty vehicles produced by the manufacturer during the most recent year for which data are available shall be not less than the average fuel economy for all light duty vehicles of the manufacturer for model year 2005. In order to determine fuel economy baselines for eligibility of a new manufacturer or a manufacturer that has not produced previously produced equivalent vehicles, the Secretary may substitute industry averages.

**(f) Fees**

Administrative costs shall be no more than \$100,000 or 10 basis point<sup>2</sup> of the loan.

**(g) Priority**

The Secretary shall, in making awards or loans to those manufacturers that have existing facilities, give priority to those facilities that are oldest or have been in existence for at least 20 years or are utilized primarily for the manufacture of ultra efficient vehicles. Such facilities can currently be sitting idle.

**(h) Set aside for small advanced technology vehicle manufacturers and component suppliers**

**(1) Definition of covered firm**

In this subsection, the term “covered firm” means a firm that—

(A) employs less than 500 individuals; and

(B) manufactures ultra efficient vehicles, advanced technology vehicles, or components of advanced technology vehicles.

**(2) Set aside**

Of the amount of funds that are used to provide awards for each fiscal year under subsection (b), the Secretary shall use not less than 10 percent to provide awards to covered firms or consortia led by a covered firm.

**(i) Appointment and pay of personnel**

(1) The Secretary may use direct hiring authority pursuant to section 3304(a)(3) of title 5 to appoint such professional and administrative

personnel as the Secretary deems necessary to the discharge of the Secretary’s functions under this section.

(2) The rate of pay for a person appointed pursuant to paragraph (1) shall not exceed the maximum rate payable for GS-15 of the General Schedule under chapter 53 such<sup>3</sup> title 5.

(3) The Secretary may retain such consultants as the Secretary deems necessary to the discharge of the functions required by this section, pursuant to section 1901 of title 41.

**(j) Coordination**

In carrying out this section, the Secretary shall coordinate with relevant vehicle, bio-energy, and hydrogen and fuel cell demonstration project activities supported by the Department.

**(k) Outreach**

In carrying out this section, the Secretary shall—

(1) provide assistance with the completion of applications for awards or loans under this section; and

(2) conduct outreach, including through conferences and online programs, to disseminate information on awards and loans under this section to potential applicants.

**(I) Repealed. Pub. L. 117-328, div. D, title III, § 308, Dec. 29, 2022, 136 Stat. 4645**

**(m) Report**

Not later than 2 years after November 15, 2021, and every 3 years thereafter, the Secretary shall submit to Congress a report on the status of projects supported by a loan under this section, including—

(1) a list of projects receiving a loan under this section, including the loan amount and construction status of each project;

(2) the status of the loan repayment for each project, including future repayment projections;

(3) data regarding the number of direct and indirect jobs retained, restored, or created by financed projects;

(4) the number of new projects projected to receive a loan under this section in the next 2 years, including the projected aggregate loan amount over the next 2 years;

(5) evaluation of ongoing compliance with the assurances and commitments, and of the predictions, made by applicants pursuant to paragraphs (2) and (3) of subsection (d);

(6) the total number of applications received by the Department each year; and

(7) any other metrics the Secretary determines appropriate.

(Pub. L. 110-140, title I, §136, Dec. 19, 2007, 121 Stat. 1514; Pub. L. 110-329, div. A, §129(c), Sept. 30, 2008, 122 Stat. 3578; Pub. L. 111-85, title III, §312(a), Oct. 28, 2009, 123 Stat. 2874; Pub. L. 117-58, div. D, title IV, §40401(b), Nov. 15, 2021, 135 Stat. 1034; Pub. L. 117-169, title V, §50142(c), Aug. 16, 2022, 136 Stat. 2044; Pub. L. 117-328, div. D, title III, §308, Dec. 29, 2022, 136 Stat. 4645.)

<sup>2</sup> So in original. Probably should be “points”.

<sup>3</sup> So in original. Probably should be “of such”.

**Editorial Notes**

## REFERENCES IN TEXT

The Clean Air Act, referred to in subsec. (a)(1)(A), is act July 14, 1955, ch. 360, 69 Stat. 322, which is classified generally to chapter 85 (§ 7401 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 7401 of this title and Tables.

Reorganization Plan Numbered 14 of 1950, referred to in subsec. (d)(2)(B), is set out in the Appendix to Title 5, Government Organization and Employees.

## CODIFICATION

In subsec. (i)(3), “section 1901 of title 41” substituted for “section 31 of the Office of Federal Procurement Policy Act (41 U.S.C. 427)” on authority of Pub. L. 111-350, § 6(c), Jan. 4, 2011, 124 Stat. 3854, which Act enacted Title 41, Public Contracts.

## AMENDMENTS

2022—Subsec. (d)(1). Pub. L. 117-169 struck out “a total of not more than \$25,000,000,000 in” after “to provide”.

Subsec. (l). Pub. L. 117-328 struck out subsec. (l). Text read as follows: “Amounts appropriated to the Secretary before November 15, 2021, shall not be available to the Secretary to provide awards under subsection (b) or loans under subsection (d) for the costs of activities that were not eligible for those awards or loans on the day before that date.”

2021—Subsec. (a)(1). Pub. L. 117-58, § 40401(b)(1), substituted “means—” for “means”, inserted subpar. (A) designation before “an ultra”, redesignated former subpars. (A) to (C) as cls. (i) to (iii) of subpar. (A), respectively, and added subpars. (B) to (F).

Subsec. (b). Pub. L. 117-58, § 40401(b)(3)(A), substituted “ultra efficient vehicle manufacturers, advanced technology vehicle manufacturers, and component suppliers” for “ultra efficient vehicle manufacturers, and component suppliers” in introductory provisions.

Subsec. (d)(3). Pub. L. 117-58, § 40401(b)(2)(A), added par. (3) and struck out former par. (3). Prior to amendment, text read as follows: “The Secretary shall select eligible projects to receive loans under this subsection in cases in which, as determined by the Secretary, the award recipient—

“(A) is financially viable without the receipt of additional Federal funding associated with the proposed project;

“(B) will provide sufficient information to the Secretary for the Secretary to ensure that the qualified investment is expended efficiently and effectively; and

“(C) has met such other criteria as may be established and published by the Secretary.”

Subsec. (d)(4)(E). Pub. L. 117-58, § 40401(b)(2)(B), added subpar. (E).

Subsec. (d)(5). Pub. L. 117-58, § 40401(b)(4), added par. (5).

Subsec. (h). Pub. L. 117-58, § 40401(b)(3)(B)(i), substituted “advanced technology vehicle” for “automobile” in heading.

Subsec. (h)(1)(B). Pub. L. 117-58, § 40401(b)(3)(B)(ii), substituted “advanced technology vehicles, or components of advanced technology vehicles” for “automobiles, or components of automobiles”.

Subsecs. (i) to (m). Pub. L. 117-58, § 40401(b)(3)(C)–(E), added subsecs. (j) to (m), redesignated former subsec. (j) as (i), and struck out former subsec. (i). Prior to amendment, text of subsec. (i) read as follows: “There are authorized to be appropriated such sums as are necessary to carry out this section for each of fiscal years 2008 through 2012.”

2009—Subsec. (a)(1). Pub. L. 111-85, § 312(a)(1)(A), inserted “an ultra efficient vehicle or” after “means” in introductory provisions.

Subsec. (a)(5). Pub. L. 111-85, § 312(a)(1)(B), added par. (5).

Subsec. (b). Pub. L. 111-85, § 312(a)(2)(A), inserted “, ultra efficient vehicle manufacturers,” after “automobile manufacturers” in introductory provisions.

Subsec. (b)(1)(C). Pub. L. 111-85, § 312(a)(2)(B), added subpar. (C).

Subsec. (b)(2). Pub. L. 111-85, § 312(a)(2)(C), inserted “, ultra efficient vehicles,” after “qualifying vehicles”.

Subsec. (g). Pub. L. 111-85, § 312(a)(3), inserted “or are utilized primarily for the manufacture of ultra efficient vehicles” after “20 years”.

Subsec. (h)(1)(B). Pub. L. 111-85, § 312(a)(4), substituted “ultra efficient vehicles, automobiles,” for “automobiles”.

2008—Subsec. (d)(1). Pub. L. 110-329, § 129(c)(1), inserted at end “The loans shall be made through the Federal Financing Bank, with the full faith and credit of the United States Government on the principal and interest. The full credit subsidy shall be paid by the Secretary using appropriated funds.”

Subsec. (e). Pub. L. 110-329, § 129(c)(2), substituted “Not later than 60 days after September 30, 2008, the Secretary shall promulgate an interim final rule establishing regulations that the Secretary deems necessary to administer this section and any loans made by the Secretary pursuant to this section. Such interim final rule shall require that,” for “The Secretary shall issue regulations that require that.”.

Subsec. (j). Pub. L. 110-329, § 129(c)(3), added subsec. (j).

**Statutory Notes and Related Subsidiaries**

## EFFECTIVE DATE

Section effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110-140, set out as a note under section 1824 of Title 2, The Congress.

## WAGE RATE REQUIREMENTS

For provisions relating to rates of wages to be paid to laborers and mechanics on projects for construction, alteration, or repair work funded under div. D or an amendment by div. D of Pub. L. 117-58, including authority of Secretary of Labor, see section 18851 of this title.

## RECONSIDERATION OF PRIOR APPLICATIONS

Pub. L. 111-85, title III, § 312(b), Oct. 28, 2009, 123 Stat. 2875, provided that: “The Secretary of Energy shall reconsider applications for assistance under section 136 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17013) that were—

“(1) timely filed under that section before January 1, 2009;

“(2) rejected on the basis that the vehicles to which the proposal related were not advanced technology vehicles; and

“(3) related to ultra efficient vehicles.”

**§ 17014. Research and development into integrating electric vehicles onto the electric grid****(a) In general**

The Secretary shall establish a research, development, and demonstration program to advance the integration of electric vehicles, including plug-in hybrid electric vehicles, onto the electric grid.

**(b) Vehicles-to-grid integration assessment report**

Not later than 1 year after December 27, 2020, the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on the results of a study that examines the re-

on the label required to be affixed or caused to be affixed on a new automobile pursuant to subpart D of part 600 of title 40, Code of Federal Regulations; “(B) with respect to an eligible trade-in vehicle, the equivalent of the number described in subparagraph (A), and posted under the words ‘Estimated New EPA MPG’ and above the word ‘Combined’ for vehicles of model year 1984 through 2007, or posted under the words ‘New EPA MPG’ and above the word ‘Combined’ for vehicles of model year 2008 or later on the fueleconomy.gov website of the Environmental Protection Agency for the make, model, and year of such vehicle; or

“(C) with respect to an eligible trade-in vehicle manufactured between model years 1978 through 1985, the equivalent of the number described in subparagraph (A) as determined by the Secretary (and posted on the website of the National Highway Traffic Safety Administration) using data maintained by the Environmental Protection Agency for the make, model, and year of such vehicle.

“(6) the term ‘dealer’ means a person licensed by a State who engages in the sale of new automobiles to ultimate purchasers;

“(7) the term ‘eligible trade-in vehicle’ means an automobile or a work truck (as such terms are defined in section 32901(a) of title 49, United States Code) that, at the time it is presented for trade-in under this section—

“(A) is in drivable condition;

“(B) has been continuously insured consistent with the applicable State law and registered to the same owner for a period of not less than 1 year immediately prior to such trade-in;

“(C) was manufactured less than 25 years before the date of the trade-in; and

“(D) in the case of an automobile, has a combined fuel economy value of 18 miles per gallon or less;

“(8) the term ‘new fuel efficient automobile’ means an automobile described in paragraph (1), (2), (3), or (4)—

“(A) the equitable or legal title of which has not been transferred to any person other than the ultimate purchaser;

“(B) that carries a manufacturer’s suggested retail price of \$45,000 or less;

“(C) that—

“(i) in the case of passenger automobiles, category 1 trucks, or category 2 trucks, is certified to applicable standards under section 86.1811-04 of title 40, Code of Federal Regulations; or

“(ii) in the case of category 3 trucks, is certified to the applicable vehicle or engine standards under section 86.1816-08, 86-007-11 [probably means 86.007-11], or 86.008-10 of title 40, Code of Federal Regulations; and

“(D) that has the combined fuel economy value of at least—

“(i) 22 miles per gallon for a passenger automobile;

“(ii) 18 miles per gallon for a category 1 truck; or

“(iii) 15 miles per gallon for a category 2 truck;

“(9) the term ‘Program’ means the Consumer Assistance to Recycle and Save Program established by this section;

“(10) the term ‘qualifying lease’ means a lease of an automobile for a period of not less than 5 years;

“(11) the term ‘scrappage value’ means the amount received by the dealer for a vehicle upon transferring title of such vehicle to the person responsible for ensuring the dismantling and destroying of the vehicle;

“(12) the term ‘Secretary’ means the Secretary of Transportation acting through the National Highway Traffic Safety Administration;

“(13) the term ‘ultimate purchaser’ means, with respect to any new automobile, the first person who in good faith purchases such automobile for purposes other than resale;

“(14) the term ‘vehicle identification number’ means the 17 character number used by the auto-

mobile industry to identify individual automobiles; and

“(15) the term ‘voucher’ means an electronic transfer of funds to a dealer based on an eligible transaction under this program.

“(j) APPROPRIATION.—There is hereby appropriated to the Secretary of Transportation \$1,000,000,000, of which up to \$50,000,000 is available for administration, to remain available until expended to carry out this section.”

### § 32902. Average fuel economy standards

(a) PRESCRIPTION OF STANDARDS BY REGULATION.—At least 18 months before the beginning of each model year, the Secretary of Transportation shall prescribe by regulation average fuel economy standards for automobiles manufactured by a manufacturer in that model year. Each standard shall be the maximum feasible average fuel economy level that the Secretary decides the manufacturers can achieve in that model year.

(b) STANDARDS FOR AUTOMOBILES AND CERTAIN OTHER VEHICLES.—

(1) IN GENERAL.—The Secretary of Transportation, after consultation with the Secretary of Energy and the Administrator of the Environmental Protection Agency, shall prescribe separate average fuel economy standards for—

(A) passenger automobiles manufactured by manufacturers in each model year beginning with model year 2011 in accordance with this subsection;

(B) non-passenger automobiles manufactured by manufacturers in each model year beginning with model year 2011 in accordance with this subsection; and

(C) work trucks and commercial medium-duty or heavy-duty on-highway vehicles in accordance with subsection (k).

(2) FUEL ECONOMY STANDARDS FOR AUTOMOBILES.—

(A) AUTOMOBILE FUEL ECONOMY AVERAGE FOR MODEL YEARS 2011 THROUGH 2020.—The Secretary shall prescribe a separate average fuel economy standard for passenger automobiles and a separate average fuel economy standard for non-passenger automobiles for each model year beginning with model year 2011 to achieve a combined fuel economy average for model year 2020 of at least 35 miles per gallon for the total fleet of passenger and non-passenger automobiles manufactured for sale in the United States for that model year.

(B) AUTOMOBILE FUEL ECONOMY AVERAGE FOR MODEL YEARS 2021 THROUGH 2030.—For model years 2021 through 2030, the average fuel economy required to be attained by each fleet of passenger and non-passenger automobiles manufactured for sale in the United States shall be the maximum feasible average fuel economy standard for each fleet for that model year.

(C) PROGRESS TOWARD STANDARD REQUIRED.—In prescribing average fuel economy standards under subparagraph (A), the Secretary shall prescribe annual fuel economy standard increases that increase the applicable average fuel economy standard ratably beginning with model year 2011 and ending with model year 2020.



under subsections (a), (b), (d), and (e), as well as for the model year in which the manufacturer earned such credits.

(3) **MAXIMUM INCREASE.**—The maximum increase in any compliance category attributable to transferred credits is—

(A) for model years 2011 through 2013, 1.0 mile per gallon;

(B) for model years 2014 through 2017, 1.5 miles per gallon; and

(C) for model year 2018 and subsequent model years, 2.0 miles per gallon.

(4) **LIMITATION.**—The transfer of credits by a manufacturer to the category of passenger automobiles manufactured domestically is limited to the extent that the fuel economy level of such automobiles shall comply with the requirements under section 32904(b)(4), without regard to any transfer of credits from other categories of automobiles described in paragraph (6)(B).

(5) **YEARS AVAILABLE.**—A credit may be transferred under this subsection only if it is earned after model year 2010.

(6) **DEFINITIONS.**—In this subsection:

(A) **FLEET.**—The term “fleet” means all automobiles manufactured by a manufacturer in a particular model year.

(B) **COMPLIANCE CATEGORY OF AUTOMOBILES.**—The term “compliance category of automobiles” means any of the following 3 categories of automobiles for which compliance is separately calculated under this chapter:

- (i) Passenger automobiles manufactured domestically.
- (ii) Passenger automobiles not manufactured domestically.
- (iii) Non-passenger automobiles.

(h) **REFUND OF COLLECTED PENALTY.**—When a civil penalty has been collected under this chapter from a manufacturer that has earned credits under this section, the Secretary of the Treasury shall refund to the manufacturer the amount of the penalty to the extent the penalty is attributable to credits available under this section.

(Pub. L. 103–272, §1(e), July 5, 1994, 108 Stat. 1061; Pub. L. 110–140, title I, §104(a), Dec. 19, 2007, 121 Stat. 1501.)

**HISTORICAL AND REVISION NOTES**

<i>Revised Section</i>	<i>Source (U.S. Code)</i>	<i>Source (Statutes at Large)</i>
32903(a) .....	15:2002(l)(1)(B), (4).	Oct. 20, 1972, Pub. L. 92–513, 86 Stat. 947, §502(l); added Oct. 10, 1980, Pub. L. 96–425, §6(b), 94 Stat. 1826.
32903(b)(1) ..	15:2002(l)(1)(A).	
32903(b)(2) ..	15:2002(l)(1)(C).	
32903(c) .....	15:2002(l)(1)(D).	
32903(d) .....	15:2002(l)(1)(E).	
32903(e) .....	15:2002(l)(2).	
32903(f) .....	15:2002(l)(3).	

In this section, various forms of the words “apply credits” are substituted for various forms of “credits are available to be taken into account” to be more concise and to make more clear the distinction between when credits are available and to what years they may be applied.

In subsection (a), before clause (1), the text of 15:2002(l)(4) is omitted as surplus because of 49:322(a). The words “any adjustment under subsection (d) of this

section” are omitted because 15:2002(d) is omitted from the revised title as executed. The words “calculated under subparagraph (C)” (which apparently should be “calculated under subparagraph (D)”) are omitted as surplus. In clauses (1) and (2), the words “with respect to the average fuel economy of that manufacturer” are omitted as surplus. The words “year for which the credits are earned” are substituted for “year in which such manufacturer exceeds such applicable average fuel economy standard” to eliminate unnecessary words.

Subsection (b)(1) is substituted for 15:2002(l)(1)(A) to eliminate unnecessary words.

In subsection (b)(2)(A) is substituted for 15:2002(l)(1)(C)(i)–(iii) to eliminate unnecessary words.

In subsection (e), the words “as provided in this section for passenger automobiles” are substituted for “as provided for under paragraph (1)” for clarity. The text of 15:2002(l)(2) (last sentence) is omitted as expired.

**AMENDMENTS**

2007—Subsec. (a). Pub. L. 110–140, §104(a)(1), substituted “subsections (a) through (d) of section 32902” for “section 32902(b)–(d) of this title” in introductory provisions.

Subsec. (a)(2). Pub. L. 110–140, §104(a)(2), substituted “paragraph (1)” for “clause (1) of this subsection,” and “5 consecutive” for “3 consecutive”.

Subsecs. (b)(2)(B), (c)(1). Pub. L. 110–140, §104(a)(1), substituted “subsections (a) through (d) of section 32902” for “section 32902(b)–(d) of this title”.

Subsecs. (f) to (h). Pub. L. 110–140, §104(a)(3), (4), added subsecs. (f) and (g) and redesignated former subsec. (f) as (h).

**EFFECTIVE DATE OF 2007 AMENDMENT**

Amendment by Pub. L. 110–140 effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110–140, set out as an Effective Date note under section 1824 of Title 2, The Congress.

**§ 32904. Calculation of average fuel economy**

(a) **METHOD OF CALCULATION.**—(1) The Administrator of the Environmental Protection Agency shall calculate the average fuel economy of a manufacturer subject to—

(A) section 32902(a) of this title in a way prescribed by the Administrator; and

(B) section 32902(b)–(d) of this title by dividing—

(i) the number of passenger automobiles manufactured by the manufacturer in a model year; by

(ii) the sum of the fractions obtained by dividing the number of passenger automobiles of each model manufactured by the manufacturer in that model year by the fuel economy measured for that model.

(2)(A) In this paragraph, “electric vehicle” means a vehicle powered primarily by an electric motor drawing electrical current from a portable source.

(B) If a manufacturer manufactures an electric vehicle, the Administrator shall include in the calculation of average fuel economy under paragraph (1) of this subsection equivalent petroleum based fuel economy values determined by the Secretary of Energy for various classes of electric vehicles. The Secretary shall review those values each year and determine and propose necessary revisions based on the following factors:

(i) the approximate electrical energy efficiency of the vehicle, considering the kind of vehicle and the mission and weight of the vehicle.



## Environmental Protection Agency

## § 86.1803–01

Division, U.S. Environmental Protection Agency, 2000 Traverwood Drive, Ann Arbor, Michigan 48105.

[75 FR 25682, May 7, 2010, as amended at 76 FR 19873, Apr. 8, 2011; 77 FR 63155, Oct. 15, 2012; 79 FR 23706, Apr. 28, 2014; 80 FR 9104, Feb. 19, 2015; 81 FR 73982, Oct. 25, 2016; 88 FR 4478, Jan. 24, 2023]

### § 86.1802–01 Section numbering; construction.

(a) *Section numbering.* The model year of initial applicability is indicated by the section number. The two digits following the hyphen designate the first model year for which a section is applicable. The section continues to apply to subsequent model years unless a later model year section is adopted. Example: Section 86.18xx–10 applies to model year 2010 and later vehicles. If a § 86.18xx–17 is promulgated, it would apply beginning with the 2017 model year; § 86.18xx–10 would apply only to model years 2010 through 2016, except as specified in § 86.18xx–17.

(b) A section reference without a model year suffix refers to the section applicable for the appropriate model year.

(c) If a regulation in this subpart references a section that has been superseded or no longer exists, this should be understood as a reference to the same section for the appropriate model year. For example, if a regulation in this subpart refers to § 86.1845–01, it should be taken as a reference to § 86.1845–04 or any later version of § 86.1845 that applies for the appropriate model year. However, this does not apply if the reference to a superseded section specifically states that the older provision applies instead of any updated provisions from the section in effect for the current model year; this occurs most often as part of the transition to new emission standards.

[81 FR 73982, Oct. 25, 2016]

### § 86.1803–01 Definitions.

The following definitions apply to this subpart:

*505 Cycle* means the test cycle that consists of the first 505 seconds (seconds 1 to 505) of the EPA Urban Dynamometer Driving Schedule, described in § 86.115–00 and listed in appendix I, paragraph (a), of this part.

*866 Cycle* means the test cycle that consists of the last 866 seconds (seconds 506 to 1372) of the EPA Urban Dynamometer Driving Schedule, described in § 86.115–00 and listed in appendix I, paragraph (a), of this part.

*Abnormally treated vehicle* means any diesel light-duty vehicle or diesel light-duty truck that is operated for less than five miles in a 30 day period immediately prior to conducting a particulate emissions test.

*AC1* means a test procedure as described in § 86.162–00 which simulates testing with air conditioning operating in an environmental test cell by adding the air conditioning compressor load to the normal dynamometer forces.

*AC2* means a test procedure as described in § 86.162–00 which simulates testing with air conditioning operating in an environmental test cell by adding a heat load to the passenger compartment.

*Accuracy* means the difference between a measurement and true value.

*Act* means Part A of Title II of the Clean Air Act as amended, 42 U.S.C., 7401, *et seq.*

*Adjusted Loaded Vehicle Weight* means the numerical average of vehicle curb weight and gross vehicle weight rating (GVWR).

*Administrator* means the Administrator of the Environmental Protection Agency or his/her authorized representative.

*Air Conditioning Idle Test* means the test procedure specified in § 86.165–12.

*Air conditioning system* means a unique combination of air conditioning and climate control components, including: compressor type (*e.g.*, belt, gear, or electric-driven, or a combination of compressor drive mechanisms); compressor refrigerant capacity; the number and type of rigid pipe and flexible hose connections; the number of high side service ports; the number of low side service ports; the number of switches, transducers, and expansion valves; the number of TXV refrigerant control devices; the number and type of heat exchangers, mufflers, receiver/dryers, and accumulators; and the length and type of flexible hose (*e.g.*, rubber, standard barrier or veneer, ultra-low permeation).

*Alternative fuels* means any fuel other than gasoline and diesel fuels, such as methanol, ethanol, and gaseous fuels.

*Ambulance* means a vehicle used for emergency medical care that provides all of the following:

- (1) A driver's compartment.
- (2) A patient compartment to accommodate an emergency medical services provider and one patient located on the primary cot so positioned that the primary patient can be given intensive life-support during transit.
- (3) Equipment and supplies for emergency care at the scene as well as during transport.
- (4) Safety, comfort, and avoidance of aggravation of the patient's injury or illness.
- (5) Two-way radio communication.
- (6) Audible and visual traffic warning devices.

*Approach angle* means the smallest angle in a plan side view of an automobile, formed by the level surface on which the automobile is standing and a line tangent to the front tire static loaded radius arc and touching the underside of the automobile forward of the front tire.

*As-received condition* means the condition of an in-use vehicle procured for emission testing required by this subpart upon which no adjustments, maintenance, or component replacement has occurred subsequent to the vehicle's last routine operation by the vehicle's owner, lessee, or operator prior to procurement.

*Auxiliary Emission Control Device* (AECD) means any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system.

*Averaging for chassis-bases heavy-duty vehicles* means the exchange of NO<sub>x</sub> emission credits among test groups within a given manufacturer's product line.

*Averaging set* means a category or subcategory of vehicles within which test groups can average and trade emission credits with one another.

*Axle clearance* means the vertical distance from the level surface on which

an automobile is standing to the lowest point on the axle differential of the automobile.

*Banking* means one of the following:

(1) The retention of NO<sub>x</sub> emission credits for complete heavy-duty vehicles by the manufacturer generating the emission credits, for use in future model year certification programs as permitted by regulation.

(2) The retention of cold temperature non-methane hydrocarbon (NMHC) emission credits for light-duty vehicles, light-duty trucks, and medium-duty passenger vehicles by the manufacturer generating the emission credits, for use in future model year certification programs as permitted by regulation.

(3) The retention of NO<sub>x</sub> emission credits for light-duty vehicles, light-duty trucks, and medium-duty passenger vehicles for use in future model year certification programs as permitted by regulation.

(4) The retention of CO<sub>2</sub> emission credits for light-duty vehicles, light-duty trucks, and medium-duty passenger vehicles for use in future model year certification programs as permitted by regulation.

*Base level* has the meaning given in 40 CFR 600.002 for LDV, LDT, and MDPV. See § 86.1819-14 for heavy-duty vehicles.

*Base tire* has the meaning given in 40 CFR 600.002 for LDV, LDT, and MDPV.

*Base vehicle* has the meaning given in 40 CFR 600.002 for LDV, LDT, and MDPV.

*Basic engine* has the meaning given in 40 CFR 600.002.

*Basic vehicle frontal area* means the area enclosed by the geometric projection of the basic vehicle along the longitudinal axis, which includes tires but excludes mirrors and air deflectors, onto a plane perpendicular to the longitudinal axis of the vehicle.

*Bi-directional control* means the capability of a diagnostic tool to send messages on the data bus that temporarily overrides the module's control over a sensor or actuator and gives control to the diagnostic tool operator. Bi-directional controls do not create permanent changes to engine or component calibrations.

*Bin* or *emission bin* means a set of emission standards applicable to exhaust pollutants measured on the Federal Test Procedure (FTP). A bin is equivalent to a horizontal row of FTP standards in Tables S04-1 and S04-2 shown in this subpart. Manufacturers are generally free to choose the bin of standards that will apply to a certain test group of vehicles, provided that on a sales weighted average of those bins, all of their vehicles meet a specified fleet average standard for a particular pollutant.

*Body style* means a level of commonality in vehicle construction as defined by number of doors and roof treatment (e.g., sedan, convertible, fastback, hatchback).

*Body type* means a name denoting a group of vehicles that are either in the same car line or in different car lines provided the only reason the vehicles qualify to be considered in different car lines is that they are produced by a separate division of a single manufacturer.

*Breakover angle* means the supplement of the largest angle, in the plan side view of an automobile, that can be formed by two lines tangent to the front and rear static loaded radii arcs and intersecting at a point on the underside of the automobile.

*Cab-complete vehicle* means a heavy-duty vehicle that is first sold as an incomplete vehicle that substantially includes its cab. Vehicles known commercially as chassis-cabs, cab-chassis, box-deletes, bed-deletes, cut-away vans are considered cab-complete vehicles. For purposes of this definition, a cab includes a steering column and passenger compartment. Note that a vehicle lacking some components of the cab is a cab-complete vehicle if it substantially includes the cab.

*Calibration* means the set of specifications, including tolerances, unique to a particular design, version, or application of a component or components assembly capable of functionally describing its operation over its working range.

*Calibration gas* means a gas of known concentration which is used to establish the response curve of an analyzer.

*CalLEV II* or *California LEV II* refers to California's second phase of its low

emission vehicle (LEV) program. This program was adopted at the hearing of the California Air Resources Board held on November 5, 1998 and became effective on November 27, 1999.

*Candidate in-use vehicle* means an in-use vehicle which would be eligible to participate in the in-use verification program in accordance with § 86.1845-01.

*Carbon-related exhaust emissions (CREE)* has the meaning given in 40 CFR 600.002 for LDV, LDT, and MDPV.

*Car line* means a name denoting a group of vehicles within a make or car division which has a degree of commonality in construction (e.g., body, chassis). Car line does not consider any level of decor or opulence and is not generally distinguished by characteristics as roofline, number of doors, seats, or windows except for station wagons or light-duty trucks. Station wagons, light-duty trucks, and complete heavy-duty vehicles are considered to be different car lines than passenger cars.

*Class 2b* means relating to heavy-duty vehicles at or below 10,000 pounds GVWR.

*Class 3* means relating to heavy-duty vehicles above 10,000 pounds GVWR and at or below 14,000 pounds GVWR.

*Combined CO<sub>2</sub>* means the CO<sub>2</sub> value determined for a vehicle (or vehicles) by averaging the city and highway CO<sub>2</sub> values, weighted 0.55 and 0.45 respectively.

*Combined CREE* means the CREE value determined for a vehicle (or vehicles) by averaging the city and highway fuel CREE values, weighted 0.55 and 0.45 respectively.

*Configuration* means one of the following:

(1) For LDV, LDT, and MDPV, *configuration* means a subclassification within a test group which is based on engine code, inertia weight class, transmission type and gear ratios, final drive ratio, and other parameters which may be designated by the Administrator.

(2) For HDV, *configuration* has the meaning given in § 86.1819-14(d)(12).

*Conveniently available service facility and spare parts for small-volume manufacturers* means that the vehicle manufacturer has a qualified service facility at or near the authorized point of sale

or delivery of its vehicles and maintains an inventory of all emission-related spare parts or has made arrangements for the part manufacturers to supply the parts by expedited shipment (e.g., utilizing overnight express delivery service, UPS, etc.).

*Crankcase emissions* means airborne substances emitted to the atmosphere from any portion of the engine crankcase ventilation or lubrication systems.

*Critical emission-related components* are those components which are designed primarily for emission control, or whose failure may result in a significant increase in emissions accompanied by no significant impairment (or perhaps even an improvement) in performance, driveability, and/or fuel economy as determined by the Administrator.

*Critical emission-related maintenance* means that maintenance to be performed on critical emission-related components.

*Curb weight* means the actual or the manufacturer's estimated weight of the vehicle in operational status with all standard equipment, and weight of fuel at nominal tank capacity, and the weight of optional equipment computed in accordance with § 86.1832-01; incomplete light-duty trucks shall have the curb weight specified by the manufacturer.

*Curb-idle* means, for manual transmission code motor vehicles, the engine speed with the transmission in neutral or with the clutch disengaged and with the air conditioning system, if present, turned off. For automatic transmission code motor vehicles, curb-idle means the engine speed with the automatic transmission in the park position (or neutral position if there is no park position), and with the air conditioning system, if present, turned off.

*Data stream information* means information (i.e., messages and parameters) originated within the vehicle by a module or intelligent sensors (i.e., a sensor that contains and is controlled by its own module) and transmitted between a network of modules and/or intelligent sensors connected in parallel with either one or two communication wires. The information is broadcast over the communication wires for use by other

modules (e.g., chassis, transmission, etc.) to conduct normal vehicle operation or for use by diagnostic tools. Data stream information does not include engine calibration related information.

*Dedicated vehicle* means any motor vehicle engineered and designed to be operated using a single fuel. Flexible fuel vehicles and multi-fuel vehicles are not dedicated vehicles.

*Defeat device* means an auxiliary emission control device (AECD) that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless:

(1) Such conditions are substantially included in the Federal emission test procedure;

(2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident;

(3) The AECD does not go beyond the requirements of engine starting; or

(4) The AECD applies only for *emergency vehicles* and the need is justified in terms of preventing the vehicle from losing speed, torque, or power due to abnormal conditions of the emission control system, or in terms of preventing such abnormal conditions from occurring, during operation related to emergency response. Examples of such abnormal conditions may include excessive exhaust backpressure from an overloaded particulate trap, and running out of diesel exhaust fluid for engines that rely on urea-based selective catalytic reduction.

*Departure angle* means the smallest angle, in a plan side view of a motor vehicle, formed by the level surface on which the motor vehicle is standing and a line tangent to the rear tire static loaded radius arc and touching the underside of the motor vehicle rearward of the rear tire.

*Diesel* means a type of engine with operating characteristics significantly similar to the theoretical Diesel combustion cycle. The non-use of a throttle during normal operation is indicative of a diesel engine.

*Diesel exhaust fluid (DEF)* means a liquid reducing agent (other than the engine fuel) used in conjunction with selective catalytic reduction to reduce



NO<sub>x</sub> emissions. *Diesel exhaust fluid* is generally understood to be an aqueous solution of urea conforming to the specifications of ISO 22241.

*Dispensed fuel temperature* means the temperature (deg. F or deg. C may be used) of the fuel being dispensed into the tank of the test vehicle during a refueling test.

*Diurnal breathing losses* means diurnal emissions.

*Diurnal emissions* means evaporative emissions resulting from the daily cycling of ambient temperatures.

*Drive train configuration* means a unique combination of engine code, transmission configuration, and axle ratio.

*Dual fuel vehicle* means any motor vehicle engineered and designed to be operated on two different fuels, but not on a mixture of the fuels.

*Durability data vehicle* means a vehicle used to generate durability data as required in this subpart.

*Durability group* means the basic classification unit of a manufacturer's product line used for the purpose of selecting a vehicle configuration to demonstrate durability and predict deterioration in accordance with § 86.1822-01.

*Durability useful life* means the highest useful life mileage out of the set of all useful life mileages that apply to a given vehicle. The durability useful life determines the duration of service accumulation on a durability data vehicle. The determination of durability useful life shall reflect any light-duty truck or complete heavy-duty vehicle alternative useful life periods approved by the Administrator under § 86.1805-01(c). The determination of durability useful life shall exclude any standard and related useful life mileage for which the manufacturer has obtained a waiver of emission data submission requirements under § 86.1829-01.

*Electric vehicle* means a motor vehicle that is powered solely by an electric motor drawing current from a rechargeable energy storage system, such as from storage batteries or other portable electrical energy storage devices, including hydrogen fuel cells, provided that:

(1) The vehicle is capable of drawing recharge energy from a source off the

vehicle, such as residential electric service; and

(2) The vehicle must be certified to the emission standards of Bin #1 of Table S04-1 in § 86.1811-09(c)(6).

(3) The vehicle does not have an on-board combustion engine/generator system as a means of providing electrical energy.

*Element of design* means any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine.

*Emergency vehicle* means one of the following:

(1) For the greenhouse gas emission standards in § 86.1818, *emergency vehicle* means a motor vehicle manufactured primarily for use as an ambulance or combination ambulance-hearse or for use by the United States Government or a State or local government for law enforcement.

(2) For the OBD requirements in § 86.1806, *emergency vehicle* means a motor vehicle manufactured primarily for use in medical response or for use by the U.S. Government or a State or local government for law enforcement or fire protection.

(3) For other provisions under this subpart, *emergency vehicle* means a motor vehicle that is either—

(i) An ambulance or a fire truck; or

(ii) A vehicle that we have determined will likely be used in emergency situations where emission control function or malfunction may cause a significant risk to human life. For example, we would consider a pickup truck that is certain to be retrofitted with a slip-on firefighting module to be an emergency vehicle, even though it was not initially designed to be a fire truck. Also, a mobile command center that is unable to manually regenerate its DPF while on duty could be an emergency vehicle. In making this determination, we may consider any factor that has an effect on the totality of the actual risk to human life. For example, we may consider how frequently a vehicle will be used in emergency situations or how likely it is that the

emission controls will cause a significant risk to human life when the vehicle is used in emergency situations. We would not consider the pickup truck in the example above to be an emergency vehicle if there is merely a possibility (rather than a certainty) that the vehicle will be retrofitted with a slip-on firefighting module.

*Emission control system* is a unique group of emission control devices, auxiliary emission control devices, engine modifications and strategies, and other elements of design designated by the Administrator used to control exhaust emissions of a vehicle.

*Emission credits* mean the amount of emission reductions or exceedances, by a complete heavy-duty vehicle test group, below or above the emission standard, respectively. Emission credits below the standard are considered as “positive credits,” while emission credits above the standard are considered as “negative credits.” In addition, “projected credits” refer to emission credits based on the projected U.S. production volume of the test group. “Reserved credits” are emission credits generated within a model year waiting to be reported to EPA at the end of the model year. “Actual credits” refer to emission credits based on actual U.S. production volumes as contained in the end-of-year reports submitted to EPA. Some or all of these credits may be revoked if EPA review of the end of year reports or any subsequent audit actions uncover problems or errors.

*Emission-related component* means any component which can affect emissions.

*Emission-related maintenance* means that maintenance which does substantially affect emissions or which is likely to affect the emissions deterioration of the vehicle during normal in-use operation, even if the maintenance is performed at some time other than that which is recommended.

*Engine code* means one of the following:

(1) For LDV, LDT, and MDPV, *engine code* means a unique combination within a test group of displacement, fuel injection (or carburetor) calibration, choke calibration, distributor calibration, auxiliary emission control devices, and other engine and emission control system components specified

by the Administrator. For electric vehicles, engine code means a unique combination of manufacturer, electric traction motor, motor configuration, motor controller, and energy storage device.

(2) For HDV, *engine code* has the meaning given in § 86.1819-14(d)(12).

*Engine warm-up cycle* means sufficient vehicle operation such that the coolant temperature has risen by at least 40 deg. F from engine starting and reaches a minimum temperature of 160 deg. F.

*Environmental test cell* means a test cell capable of wind-speed, solar thermal load, ambient temperature, and humidity control or simulation which meets the requirements of § 86.161-00 for running emission tests with the air conditioning operating.

*EPA Enforcement Officer* means any officer or employee of the Environmental Protection Agency so designated in writing by the Administrator (or by his/her designee).

*Equivalent test weight* means the weight, within an inertia weight class, which is used in the dynamometer testing of a vehicle and which is based on its loaded vehicle weight or adjusted loaded vehicle weight in accordance with the provisions of this part.

*Ethanol-fueled vehicle* means any motor vehicle or motor vehicle engine that is engineered and designed to be operated using ethanol fuel (*i.e.*, a fuel that contains at least 50 percent ethanol (C<sub>2</sub>H<sub>5</sub>OH) by volume) as fuel.

*Evaporative emissions* means hydrocarbons emitted into the atmosphere from a motor vehicle, other than exhaust and crankcase emissions.

*Evaporative/refueling control system* means a unique combination within an evaporative/refueling family of canister adsorptive material, purge system configuration, purge strategy, and other parameters determined by the Administrator to affect evaporative and refueling emission control system durability or deterioration factors.

*Evaporative/refueling emission code* means a unique combination, in an evaporative/refueling family-evaporative emission control system combination, of purge system calibrations, fuel tank and carburetor bowl vent calibrations and other fuel system and

evaporative emission control system components and calibrations specified by the Administrator.

*Evaporative/refueling family* means the basic classification unit of a manufacturers' product line used for the purpose of evaporative and refueling emissions test fleet selection and determined in accordance with § 86.1821-01.

*Evaporative/refueling vehicle configuration* means a unique combination of basic engine, engine code, body type, and evaporative emission code.

*Exhaust emissions* means substances emitted to the atmosphere from any opening downstream from the exhaust port of a motor vehicle engine.

*Exhaust gas recirculation valve* means a device which directs a portion of the exhaust gas into the intake air stream for the purpose of controlling emissions.

*Family emission limit (FEL)* means a bin standard or emission level selected by the manufacturer that serves as the applicable emission standard for the vehicles in the family or test group in the context of fleet-average standards or emission credits.

*Federal Test Procedure* has the meaning given in 40 CFR 1066.801(c)(1)(i).

*Fire truck* means a vehicle designed to be used under emergency conditions to transport personnel and equipment and to support the suppression of fires and mitigation of other hazardous situations.

*Fixed liquid level gauge* means a type of liquid level gauge used on liquefied petroleum gas-fueled vehicles which uses a relatively small positive shutoff valve and is designed to indicate when the liquid level in the fuel tank being filled reaches the proper fill level. The venting of fuel vapor and/or liquid fuel to the atmosphere during the refueling event is generally associated with the use of the fixed liquid level gauge.

*Fleet average cold temperature NMHC standard* means, for light-duty vehicles, light-duty trucks and medium-duty passenger vehicles, an NMHC cold temperature standard imposed over an individual manufacturer's total 50-State U.S. sales (or a fraction of total U.S. sales during phase-in years), as "U.S. sales" is defined to include all national sales, including points-of-first sale in California, of a given model year. Man-

ufacturers determine their compliance with such a standard by averaging, on a sales-weighted basis, the individual NMHC "Family Emission Limits" (FEL—as defined in this subpart) to which light-duty vehicles, light-duty trucks and medium-duty passenger vehicles were certified and sold for that model year.

*Fleet average NO<sub>x</sub> standard* means, for light-duty vehicles, light-duty trucks and medium-duty passenger vehicles, a NO<sub>x</sub> standard imposed over an individual manufacturer's total U.S. sales (or a fraction of total U.S. sales during phase-in years), as 'U.S. sales' is defined in this subpart, of a given model year. Manufacturers determine their compliance with such a standard by averaging, on a sales weighted basis, the individual NO<sub>x</sub> standards they choose for the fleet of light-duty vehicles, light-duty trucks and medium-duty passenger vehicles they sell of that model year.

*Flexible fuel vehicle* means any motor vehicle engineered and designed to be operated on a petroleum fuel and on a methanol or ethanol fuel, or any mixture of the petroleum fuel and methanol or ethanol. Methanol-fueled and ethanol-fueled vehicles that are only marginally functional when using gasoline (*e.g.*, the engine has a drop in rated horsepower of more than 80 percent) are not flexible fuel vehicles.

*Footprint* is the product of average track width (rounded to the nearest tenth of an inch) and wheelbase (measured in inches and rounded to the nearest tenth of an inch), divided by 144 and then rounded to the nearest tenth of a square foot, where the average track width is the average of the front and rear track widths, where each is measured in inches and rounded to the nearest tenth of an inch.

*Fuel cell vehicle* means an electric vehicle propelled solely by an electric motor where energy for the motor is supplied by an electrochemical cell that produces electricity via the non-combustion reaction of a consumable fuel, typically hydrogen.

*Fuel system* means the combination of fuel tank(s), fuel pump, fuel lines, and carburetor or fuel injection components, and includes all fuel system

vents and fuel evaporative emission control system components.

*Full size pickup truck* means a light truck which has a passenger compartment and an open cargo box and which meets the following specifications:

(1) A minimum cargo bed width between the wheelhouses of 48 inches, measured as the minimum lateral distance between the limiting interferences (pass-through) of the wheelhouses. The measurement shall exclude the transitional arc, local protrusions, and depressions or pockets, if present. An open cargo box means a vehicle where the cargo box does not have a permanent roof or cover. Vehicles produced with detachable covers are considered "open" for the purposes of these criteria.

(2) A minimum open cargo box length of 60 inches, where the length is defined by the lesser of the pickup bed length at the top of the body or the pickup bed length at the floor, where the length at the top of the body is defined as the longitudinal distance from the inside front of the pickup bed to the inside of the closed endgate as measured at the height of the top of the open pickup bed along vehicle centerline, and the length at the floor is defined as the longitudinal distance from the inside front of the pickup bed to the inside of the closed endgate as measured at the cargo floor surface along vehicle centerline.

(3)(i) A minimum towing capability of 5,000 pounds, where minimum towing capability is determined by subtracting the gross vehicle weight rating from the gross combined weight rating; or

(ii) A minimum payload capability of 1,700 pounds, where minimum payload capability is determined by subtracting the curb weight from the gross vehicle weight rating.

*Gaseous fuel* means natural gas or liquefied petroleum gas.

*Good engineering judgment* has the meaning given in 40 CFR 1068.30. See 40 CFR 1068.5 for the administrative process we use to evaluate good engineering judgment.

*Gross combination weight rating (GCWR)* means the value specified by the vehicle manufacturer as the maximum weight of a loaded vehicle and

trailer, consistent with good engineering judgment.

*Gross vehicle weight* means the manufacturer's gross weight rating for the individual vehicle.

*Gross vehicle weight rating (GVWR)* means the value specified by the manufacturer as the maximum design loaded weight of a single vehicle, consistent with good engineering judgment.

*Hang-up* refers to the process of hydrocarbon molecules being adsorbed, condensed, or by any other method removed from the sample flow prior to reaching the instrument detector. It also refers to any subsequent desorption of the molecules into the sample flow when they are assumed to be absent.

*Heating degree day* means the number of degrees per day the daily average temperature is below 65 degrees Fahrenheit. The daily average temperature is the mean of the maximum and minimum temperature for a 24-hour period. The annual heating degree day value is derived by summing the daily heating degree days over a calendar year period.

*Heavy light-duty truck* means any light-duty truck rated greater than 6000 lbs GVWR. The LDT3 and LDT4 classifications comprise the heavy light-duty truck category.

*Heavy-duty engine* means any engine which the engine manufacturer could reasonably expect to be used for motive power in a heavy-duty vehicle.

*Heavy-duty vehicle* means any complete or incomplete motor vehicle rated at more than 8,500 pounds GVWR. Heavy-duty vehicle also includes incomplete vehicles that have a curb weight above 6,000 pounds or a basic vehicle frontal area greater than 45 square feet. Note that MDPVs are heavy-duty vehicles that are in many cases subject to requirements that apply for light-duty trucks.

*High altitude* means any elevation over 1,219 meters (4,000 feet).

*High-altitude conditions* means a test altitude of 1,620 meters (5,315 feet), plus or minus 100 meters (328 feet), or equivalent observed barometric test conditions of 83.3 kPa (24.2 inches Hg) plus or minus 1 kPa (0.30 Hg).



*Highway Fuel Economy Test Procedure (HFET)* has the meaning given in 40 CFR 1066.801(c)(3).

*Hot-soak emissions* and *Hot-soak losses* means evaporative emissions after termination of engine operation.

*Hybrid electric vehicle (HEV)* means a motor vehicle which draws propulsion energy from onboard sources of stored energy that are both an internal combustion engine or heat engine using consumable fuel, and a rechargeable energy storage system such as a battery, capacitor, hydraulic accumulator, or flywheel. This includes plug-in hybrid electric vehicles.

*Indirect information* means any information that is not specifically contained in the service literature, but is contained in items such as tools or equipment provided to franchised dealers (or others).

*Inertia weight class* means the class, which is a group of equivalent test weights, into which a vehicle is grouped based on its test weight basis in accordance with the provisions of this part 86.

*Integrated refueling emission control system* means a system where vapors resulting from refueling are stored in a common vapor storage unit(s) with other evaporative emissions of the vehicle and are purged through a common purge system.

*Interim non-Tier 2 vehicle, interim non-Tier 2 LDV/LLDT, interim non-Tier 2 HLD/MDPV, or interim vehicle* refer to 2004 or later model year light-duty vehicles, light-duty trucks or MDPVs, or a specific combination thereof, not certified to Tier 2 FTP exhaust emission standards during the Tier 2 phase-in period. Model year 2004 HLDs belonging to test groups whose model year commences before December 21, 2003, are not interim non-Tier 2 HLDs unless their manufacturer chooses to comply with the interim requirements applicable to HLDs for all of its 2004 model year HLDs as permitted in this subpart. Similarly 2004 model year heavy-duty vehicles whose model year commences before December 21, 2003, are not interim non-Tier 2 MDPVs unless their manufacturer chooses to comply with the interim requirements applicable to MDPVs for all of its 2004 model year MDPVs as permitted in this

subpart. The terms *interim non-Tier 2 vehicle, interim non-Tier 2 LDV, interim non-Tier 2 LDT, interim non-Tier 2 HLD, interim non-Tier 2 MDPV*, etc. have the same meaning without the words “non-Tier 2”.

*Interior volume index* has the meaning given in § 600.315-08 of this chapter.

*Intermediary* means any individual or entity, other than a manufacturer, which provides service or equipment to automotive technicians.

*Intermediate temperature cold testing* means testing done pursuant to the driving cycle and testing conditions contained in subpart C of this part, at temperatures between 25 deg.F (–4 deg. C) and 68 deg. F (20 deg. C).

*In-use vehicle* means a customer owned and operated vehicle which is not under the control of the manufacturer, dealerships or their agents. Leased vehicles will be considered in-use vehicles for the purpose of this subpart if the vehicles meet the criteria specified in § 86.1845-01.

*In-use verification program (IUV)* means the testing program conducted by manufacturers which gathers in-use emission data in accordance with § 86.1848-01.

*LDV/T* means light-duty vehicles and light-duty trucks collectively, without regard to category.

*LEV III* means relating to the LEV III emission standards in Title 13, §§ 1961.2 and 1976 of the California Code of Regulations, as adopted by the California Air Resources Board (incorporated by reference in § 86.1).

*Light light-duty truck* means any light-duty truck rated up through 6000 lbs GVWR. The LDT1 and LDT2 classifications compose the light light-duty truck category.

*Light-duty truck* means any motor vehicle that is not a heavy-duty vehicle, but is:

- (1) Designed primarily for purposes of transportation of property or is a derivation of such a vehicle; or
- (2) Designed primarily for transportation of persons and has a capacity of more than 12 persons; or
- (3) Available with special features enabling off-street or off-highway operation and use.

*Light-duty truck 1 (LDT1)* means any light light-duty truck up through 3750 lbs loaded vehicle weight.

*Light-duty truck 2 (LDT2)* means any light light-duty truck greater than 3750 lbs loaded vehicle weight.

*Light-duty truck 3 (LDT3)* means any heavy light-duty truck up through 5750 lbs adjusted loaded vehicle weight.

*Light-duty truck 4 (LDT4)* means any heavy light-duty truck greater than 5750 lbs adjusted loaded vehicle weight.

*Light-duty vehicle* means a passenger car or passenger car derivative capable of seating 12 passengers or less.

*Liquefied petroleum gas* means a liquid hydrocarbon fuel that is stored under pressure and is composed primarily of species that are gases at atmospheric conditions (temperature = 25 deg. C and pressure = 1 atm), excluding natural gas.

*Loaded vehicle weight* means the vehicle's curb weight plus 300 pounds.

*Low altitude* means any elevation equal to or less than 1,219 meters (4,000 feet).

*Low-altitude conditions* means a test altitude less than 549 meters (1,800 feet).

*Malfunction* means not operating according to specifications (e.g., those specifications listed in the certification application).

*Medium-duty passenger vehicle (MDPV)* means any heavy-duty vehicle (as defined in this subpart) with a gross vehicle weight rating (GVWR) of less than 10,000 pounds that is designed primarily for the transportation of persons. The MDPV definition does not include any vehicle which:

- (1) Is an "incomplete truck" as defined in this subpart; or
- (2) Has a seating capacity of more than 12 persons; or
- (3) Is designed for more than 9 persons in seating rearward of the driver's seat; or
- (4) Is equipped with an open cargo area (for example, a pick-up truck box or bed) of 72.0 inches in interior length or more. A covered box not readily accessible from the passenger compartment will be considered an open cargo area for purposes of this definition.

*Methanol-fueled vehicle* means any motor vehicle or motor vehicle engine that is engineered and designed to be

operated using methanol fuel (i.e., a fuel that contains at least 50 percent methanol (CH<sub>3</sub>OH) by volume) as fuel.

*Mild hybrid electric vehicle* means a hybrid electric vehicle that has start/stop capability and regenerative braking capability, where the recovered energy over the Federal Test Procedure is at least 15 percent but less than 65 percent of the total braking energy, as measured and calculated according to 40 CFR 600.116-12(d).

*Model* means a specific combination of car line, body style, and drivetrain configuration.

*Model type* has the meaning given in 40 CFR 600.002 for LDV, LDT, and MDPV.

*Model year* means the manufacturer's annual production period (as determined by the Administrator) which includes January 1 of such calendar year: Provided that if the manufacturer has no annual production period, the term "model year" shall mean the calendar year.

*Motor vehicle* has the meaning given in § 85.1703 of this chapter.

*Multi-fuel* means capable of operating on two or more different fuel types, either separately or simultaneously.

*Multi-fuel vehicle* means any motor vehicle capable of operating on two or more different fuel types, either separately or simultaneously.

*Natural gas* means a fuel whose primary constituent is methane.

*Nominal fuel tank capacity* means the volume of the fuel tank(s), specified by the manufacturer to the nearest tenth of a U.S. gallon, which may be filled with fuel from the fuel tank filler inlet.

*Non-emission-related maintenance* means that maintenance which does not substantially affect emissions and which does not have a lasting effect on the emissions deterioration of the vehicle or engine during normal in-use operation once the maintenance is performed.

*Non-integrated refueling emission control system* means a system where fuel vapors from refueling are stored in a vapor storage unit assigned solely to the function of storing refueling vapors.

*Non-Methane Hydrocarbon Equivalent* means the sum of the carbon mass

emissions of non-oxygenated non-methane hydrocarbons, methanol, formaldehyde, or other organic compounds that are separately measured, expressed as gasoline-fueled vehicle hydrocarbons. In the case of exhaust emissions, the hydrogen-to-carbon ratio of the equivalent hydrocarbon is 1.85:1. In the case of diurnal and hot soak emissions, the hydrogen-to-carbon ratios of the equivalent hydrocarbons are 2.33:1 and 2.2:1, respectively.

*Non-methane organic gases (NMOG)* means the sum of oxygenated and non-oxygenated hydrocarbons contained in a gas sample as measured using the procedures described in 40 CFR 1066.635.

*Non-oxygenated hydrocarbon* means organic emissions measured by a flame ionization detector, excluding methanol.

*N/V* means the ratio of engine speed in revolutions per minute (rpm) to vehicle speed in miles per hour in the top transmission gear. At the manufacturer's option, either the 1:1 transmission gear ratio or the lowest numerical gear ratio available in the transmission will be used to determine N/V.

*Option*, in the context of a vehicle design feature, means any available equipment or feature not standard equipment on a model.

*Original Equipment Manufacturer (OEM)* means the manufacturer responsible for the design and production of a vehicle or component. This manufacturer will be fully knowledgeable of any production changes made to the design of the vehicle or component and shall be able to track the individual vehicles or component with regard to such production changes.

*Otto-cycle* means type of engine with operating characteristics significantly similar to the theoretical Otto combustion cycle. The use of a throttle during normal operation is indicative of an Otto-cycle engine.

*Oxides of nitrogen* means the sum of the nitric oxide and nitrogen dioxide contained in a gas sample as if the nitric oxide were in the form of nitrogen dioxide.

*Periodically regenerating trap oxidizer system* means a trap oxidizer that utilizes, during normal driving conditions, an automated regeneration mode for

cleaning the trap, the operation of which can be easily detected.

*Petroleum equivalency factor* means the value specified in 10 CFR 474.3(b), which incorporates the parameters listed in 49 U.S.C. 32904(a)(2)(B) and is used to calculate petroleum-equivalent fuel economy.

*Petroleum-equivalent fuel economy* means the value, expressed in miles per gallon, that is calculated for an electric vehicle in accordance with 10 CFR 474.3(a), and reported to the Administrator of the Environmental Protection Agency for use in determining the vehicle manufacturer's corporate average fuel economy.

*Petroleum fuel* means liquid fuels normally derived from crude oil, excluding liquefied petroleum gas. Gasoline and diesel fuel are petroleum fuels.

*Petroleum-powered accessory* means a vehicle accessory (*e.g.*, a cabin heater, defroster, and/or air conditioner) that:

- (1) Uses gasoline or diesel fuel as its primary energy source; and
- (2) Meets the requirements for fuel, operation, and emissions in § 86.104-94(g) of this chapter.

*Platform* means a segment of an automobile manufacturer's vehicle fleet in which the vehicles have a degree of commonality in construction (primarily in terms of body and chassis design). Platform does not consider the model name, brand, marketing division, or level of decor or opulence, and is not generally distinguished by such characteristics as powertrain, roof line, number of doors, seats, or windows. A platform may include vehicles from various fuel economy classes, and may include light-duty vehicles, light-duty trucks, and medium-duty passenger vehicles.

*Plug-in hybrid electric vehicle (PHEV)* means a hybrid electric vehicle that has the capability to charge the battery from an off-vehicle electric source, such that the off-vehicle source cannot be connected to the vehicle while the vehicle is in motion.

*Point of first sale* means the location where the completed vehicle is first purchased. This term is synonymous with final product purchase location. The point of first sale may be a retail

customer, dealer, distributor, fleet operator, broker, secondary manufacturer, or any other entity which purchases a vehicle from a manufacturer. In cases where the end user purchases the completed vehicle directly from the manufacturer, the end user is the point of first sale.

*Precision* means the standard deviation of replicated measurements.

*Production volume* has the meaning given in 40 CFR 600.002.

*Proven emission control systems* are emission control components or systems (and fuel metering systems) that have completed full durability testing evaluation over a vehicle's useful life in some other certified test group, or have completed bench or road testing demonstrated to be equal or more severe than certification mileage accumulation requirements. Alternatively, proven components or systems are those that are determined by EPA to be of comparable functional quality and manufactured using comparable materials and production techniques as components or systems which have been durability demonstrated in some other certified test group. In addition, the components or systems must be employed in an operating environment (e.g., temperature, exhaust flow, etc.) similar to that experienced by the original or comparable components or systems in the original certified test group.

*Rated power* means an engine's maximum power output in an installed configuration, as determined by using SAE J1349 (incorporated by reference in § 86.1).

*Recall program* means the program administered by the Agency under the authority of CAA section 207, and regulations in 40 CFR part 85.

*Reconfigured emission-data vehicle* means an emission-data vehicle obtained by modifying a previously used emission-data vehicle to represent another emission-data vehicle.

*Refueling emissions* means evaporative emissions that emanate from a motor vehicle fuel tank(s) during a refueling operation.

*Refueling emissions canister(s)* means any vapor storage unit(s) that is exposed to the vapors generated during refueling.

*Resting losses* means evaporative emissions that may occur continuously, that are not diurnal emissions, hot soak emissions, refueling emissions, running losses, or spitback emissions.

*Round (rounded, rounding)* has the meaning given in 40 CFR 1065.1001, unless otherwise specified.

*Running change* means a change to a vehicle or addition of a model which occurs after certification but during vehicle production.

*Running losses* means evaporative emissions that occur during vehicle operation.

*SC03* means the test cycle, described in § 86.160-00 and listed in appendix I, paragraph (h), of this part, which is designed to represent driving immediately following startup.

*Scheduled maintenance* means any adjustment, repair, removal, disassembly, cleaning, or replacement of vehicle components or systems which is performed on a periodic basis to prevent part failure or vehicle (if the engine were installed in a vehicle) malfunction, or anticipated as necessary from inspection to correct an overt indication of vehicle malfunction or failure for which periodic maintenance is not appropriate.

*Secondary air injection* means a system whereby air (not ingested by the engine) is introduced into the exhaust system in front of a catalyst.

*Section 177 states* means the states that have adopted California's motor vehicle standards for a particular model year under section 177 of the Clean Air Act (42 U.S.C. 7507).

*Similar emission control systems* are engine, fuel metering and emission control system combinations which use the same fuel (e.g., gasoline, diesel, etc.), combustion cycle (e.g., two or four stroke), general type of fuel system (e.g., carburetor or fuel injection), catalyst system (e.g., none, oxidization, three-way plus oxidization, three-way only, etc.), fuel control system (e.g., feedback or non-feedback), secondary air system (e.g., equipped or not equipped) and exhaust gas recirculation (EGR) (e.g., equipped or not equipped).



*Span gas* means a gas of known concentration which is used routinely to set the output level of an analyzer.

*Special features enabling off-street or off-highway operation and use* means a vehicle that has:

- (1) Four-wheel drive; and
- (2) At least four of the following characteristics calculated when the automobile is at curb weight, on a level surface, with the front wheels parallel to the vehicle's longitudinal centerline, and the tires inflated to the manufacturer's recommended pressure; approach angle of not less than 28 degrees, breakover angle of not less than 14 degrees, departure angle of not less than 20 degrees, running clearance of not less than 8 inches, and front and rear axle clearances of not less than 7 inches each.

*Spitback emissions* means evaporative emissions resulting from the loss of liquid fuel that is emitted from a vehicle during a fueling operation.

*Standard equipment* means those features or equipment which are marketed on a vehicle over which the purchaser can exercise no choice.

*Static loaded radius arc* means a portion of a circle whose center is the center of a standard tire-rim combination of an automobile and whose radius is the distance from that center to the level surface on which the automobile is standing, measured with the automobile at curb weight, the wheel parallel to the vehicle's longitudinal centerline, and the tire inflated to the manufacturer's recommended pressure.

*Strong hybrid electric vehicle* means a hybrid electric vehicle that has start/stop capability and regenerative braking capability, where the recovered energy over the Federal Test Procedure is at least 65 percent of the total braking energy, as measured and calculated according to 40 CFR 600.116-12(d).

*Subconfiguration* means one of the following:

- (1) For LDV, LDT, and MDPV, *subconfiguration* has the meaning given in 40 CFR 600.002.

- (2) For HDV, *subconfiguration* has the meaning given in § 86.1819-14(d)(12).

*Supplemental FTP* (SFTP) means the additional test procedures designed to measure emissions during aggressive and microtransient driving, as de-

scribed in § 86.159-00 over the US06 cycle, and also the test procedure designed to measure urban driving emissions while the vehicle's air conditioning system is operating, as described in § 86.160-00 over the SC03 cycle.

*Tank fuel volume* means the volume of fuel in the fuel tank(s), which is determined by taking the manufacturer's nominal fuel tank(s) capacity and multiplying by 0.40. The result is rounded to the nearest tenth of a U.S. gallon in accordance with the Rounding-Off Method specified in ASTM E29-93a, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications (incorporated by reference; see § 86.1).

*Test group* means the basic classification unit within a durability group used for the purpose of demonstrating compliance with exhaust emission standards in accordance with § 86.1841-01. The test group is also used as a classification unit for gathering in-use data for the In-Use Verification Program (IUV) in accordance with § 86.1848-01.

*Test weight basis* means the basis on which equivalent test weight is determined in accordance with § 86.129-00 of subpart B of this part.

*Throttle* means a device used to control an engine's power output by limiting the amount of air entering the combustion chamber.

*Tier 2 HLDV/MDPV* means any heavy light-duty truck or medium-duty passenger vehicle, including HEVs and ZEVs, of the 2008 or later model year certified to comply with the Tier 2 FTP exhaust standards contained in § 86.1811-04 including the 0.07 g/mi fleet average NO<sub>x</sub> standard. The term Tier 2 HLDV/MDPV also includes any heavy light-duty truck or medium-duty passenger vehicle, of any model year, which is certified to Tier 2 FTP exhaust standards for purposes of generating or banking early NO<sub>x</sub> credits for averaging under Tier 2 requirements, or utilizing alternate phase-in schedules, as allowed in this subpart.

*Tier 2 LDV/LLDV* means any light-duty vehicle or light light-duty truck, including HEVs and ZEVs, of the 2004 or later model year certified to comply with the Tier 2 FTP exhaust standards

contained in § 86.1811-04 including the 0.07 g/mi fleet average NO<sub>x</sub> standard. The term Tier 2 LDV/LLDT also includes any light-duty vehicle or light light-duty truck, of any model year, which is certified to Tier 2 FTP exhaust standards for purposes of generating or banking early NO<sub>x</sub> credits for averaging under Tier 2 requirements, or utilizing alternate phase-in schedules as allowed in this subpart.

*Tier 2 standards* means those FTP exhaust emission standards including the 0.07 g/mi full useful life fleet average NO<sub>x</sub> standard, applicable to new light-duty vehicles and light light-duty trucks that begin a phase-in in the 2004 model year, and those exhaust emission standards including the 0.07 g/mi full useful life fleet average NO<sub>x</sub> standard, applicable to heavy light-duty trucks and medium-duty passenger vehicles that begin a phase-in in the 2008 model year. These standards are found in § 86.1811-04 of this subpart.

*Tier 2 vehicle* means any vehicle certified to comply with the Tier 2 FTP exhaust standards contained in § 86.1811-04 including the 0.07 g/mi fleet average NO<sub>x</sub> standard.

*Tier 3* means relating to the Tier 3 emission standards described in §§ 86.1811-17, 86.1813-17, and 86.1816-18.

*Total hydrocarbon equivalent* means the sum of the carbon mass emissions of non-oxygenated hydrocarbons, methanol, formaldehyde or other organic compounds that are separately measured, expressed as gasoline-fueled vehicle hydrocarbons. In the case of exhaust emissions, the hydrogen-to-carbon ratio of the equivalent hydrocarbon is 1.85:1. In the case of diurnal and hot soak emissions, the hydrogen-to-carbon ratios of the equivalent hydrocarbons are 2.33:1 and 2.2:1, respectively.

*Track width* is the lateral distance between the centerlines of the base tires at ground, including the camber angle.

*Trading* means the exchange of complete heavy-duty vehicle NO<sub>x</sub> emission credits between manufacturers.

*Transmission class* has the meaning given in 40 CFR 600.002 for LDV, LDT, and MDPV.

*Transmission configuration* has the meaning given in 40 CFR 600.002.

*Transmission type* means the basic type of the transmission (e.g., automatic, manual, automated manual, semi-automatic, or continuously variable) and does not include the drive system of the vehicle (e.g., front-wheel drive, rear-wheel drive, or four-wheel drive).

*U.S. heavy-duty vehicle sales* means sales of heavy-duty vehicles subject to the standards of this subpart, where the sale takes place in any state of the United States except for California (or a state that has adopted California motor vehicle standards for that model year pursuant to section 177 of the Clean Air Act).

*U.S. sales* means, unless otherwise specified, sales in any state or territory of the United States except for California or the section 177 states. Sale location is based on the point of first sale to a dealer, distributor, fleet operator, broker, or other entity.

*Unproven emission control systems* are emission control components or systems (and fuel metering systems) that do not qualify as proven emission control systems.

*Unscheduled maintenance* means any adjustment, repair, removal, disassembly, cleaning, or replacement of vehicle components or systems which is performed to correct a part failure or vehicle (if the engine were installed in a vehicle) malfunction which was not anticipated.

*US06* means the test cycle, described in § 86.159-00 and listed in appendix I, paragraph (g), of this part, which is designed to evaluate emissions during aggressive and microtransient driving.

*Useful life* means the period of use or time during which an emission standard applies to light-duty vehicles and light-duty trucks, as described in § 86.1805-01.

*Van* means a light-duty truck or complete heavy-duty vehicle having an integral enclosure, fully enclosing the driver compartment and load carrying device, and having no body sections protruding more than 30 inches ahead of the leading edge of the windshield.

*Vehicle configuration* means a unique combination of basic engine, engine code, inertia weight class, transmission configuration, and axle ratio.

*Volatile liquid fuel* means any fuel other than diesel or biodiesel that is a liquid at atmospheric pressure and has a Reid Vapor Pressure higher than 2.0 pounds per square inch.

*We (us, our)* means the Administrator of the Environmental Protection Agency and any authorized representatives.

*Wheelbase* is the longitudinal distance between front and rear wheel centerlines.

*Zero (0) miles* means that point after initial engine starting (not to exceed 100 miles of vehicle operation, or three hours of engine operation) at which normal assembly line operations and adjustments are completed, and including emission testing, if performed.

[64 FR 23925, May 4, 1999, as amended at 65 FR 6851, Feb. 10, 2000; 65 FR 59964, Oct. 6, 2000; 66 FR 5189, Jan. 18, 2001; 71 FR 2829, Jan. 17, 2006; 72 FR 8561, Feb. 26, 2007; 75 FR 25683, May 7, 2010; 77 FR 34146, June 8, 2012; 77 FR 63155, Oct. 15, 2012; 79 FR 23707, Apr. 28, 2014; 79 FR 46372, Aug. 8, 2014; 80 FR 9104, Feb. 19, 2015; 81 FR 73983, Oct. 25, 2016; 86 FR 34371, June 29, 2021]

#### § 86.1804-01 Acronyms and abbreviations.

The following abbreviations apply to this subpart:

A/C—Air conditioning.  
 AECD—Auxiliary emission control device.  
 A/F—Air/Fuel  
 ALVW—Adjusted Loaded Vehicle Weight.  
 API—American Petroleum Institute.  
 ASTM—American Society for Testing and Materials.  
 BAT—Bench-Aging Time  
 C—Celsius.  
 cfm—Cubic feet per minute.  
 CFV—Critical flow venturi.  
 CFV-CVS—Critical flow venturi—constant volume sampler.  
 CH<sub>3</sub>OH—Methanol.  
 CID—Cubic inch displacement.  
 Cl—Chemiluminescence.  
 CO—Carbon monoxide.  
 CO<sub>2</sub>—Carbon dioxide.  
 conc.—Concentration.  
 CST—Certification Short Test.  
 cu. in.—Cubic inch(es).  
 CVS—Constant volume sampler.  
 DDV—Durability Data Vehicle.  
 deg.—Degree(s).  
 DNPH—2,4-dinitrophenylhydrazine.  
 EDV—Emission Data Vehicle.  
 EP—End point.  
 ETW—Equivalent test weight.  
 F—Fahrenheit.  
 FEL—Family Emission Limit.  
 FID—Flame ionization detector.

ft.—Feet.  
 FTP—Federal Test Procedure.  
 g—gram(s).  
 gal.—U.S. gallon(s).  
 GC—Gas chromatograph.  
 GVW—Gross vehicle weight.  
 GVWR—Gross vehicle weight rating.  
 H<sub>2</sub>O—Water.  
 HC—Hydrocarbon(s).  
 HCHO—Formaldehyde.  
 HDV—Heavy-duty vehicle.  
 HEV—Hybrid electric vehicle.  
 HFID—Heated flame ionization detector.  
 Hg—Mercury.  
 HLDT—Heavy light-duty truck. Includes only those trucks over 6000 pounds GVWR (LDT3s and LDT4s).  
 HLDT/MDPV—Heavy light-duty trucks and medium-duty passenger vehicles.  
 hp—Horsepower.  
 HPLC—High-pressure liquid chromatography.  
 IBP—Initial boiling point.  
 in.—Inch(es).  
 IUVP—In-Use Verification Program.  
 K—Kelvin.  
 kg—Kilogram(s).  
 km—Kilometer(s).  
 kPa—Kilopascal(s).  
 lb.—Pound(s).  
 LDT1—Light-duty truck 1.  
 LDT2—Light-duty truck 2.  
 LDT3—Light-duty truck 3.  
 LDT4—Light-duty truck 4.  
 LDV/LLDT—Light-duty vehicles and light light-duty trucks. Includes only those trucks rated at 6000 pounds GVWR or less (LDT1s and LDT2s).  
 LDV/T—Light-duty vehicles and light-duty trucks. This term is used collectively to include, or to show that a provision applies to, all light-duty vehicles and all categories of light-duty trucks, i.e. LDT1, LDT2, LDT3 and LDT4.  
 LEV—Low Emission Vehicle.  
 LPG—Liquefied Petroleum Gas.  
 m—Meter(s).  
 max.—Maximum.  
 MDPV—Medium-duty passenger vehicle.  
 mg—Milligram(s).  
 mi.—Mile(s).  
 min.—Minimum.  
 ml—Milliliter(s).  
 mm—Millimeter(s).  
 mph—Miles per hour.  
 mV—Millivolt  
 N<sub>2</sub>—Nitrogen.  
 NDIR—Nondispersive infrared.  
 NLEV—Refers to the National Low Emission Vehicle Program. Regulations governing this program are found at subpart R of this part.  
 NMHC—Nonmethane Hydrocarbons.  
 NMHCE—Non-Methane Hydrocarbon Equivalent.  
 NMOG—Non-methane organic gases.  
 NO—nitric oxide.

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Title 40 —Protection of Environment

Chapter I —Environmental Protection Agency

Subchapter C —Air Programs

Part 86 —Control of Emissions from New and In-Use Highway Vehicles and Engines

Subpart S —General Compliance Provisions for Control of Air Pollution From New and In-Use Light-Duty Vehicles, Light-Duty Trucks, and Heavy-Duty Vehicles

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§ 86.1811-27 Criteria exhaust emission standards.

- (a) **Applicability and general provisions.** The criteria exhaust emission standards of this section apply for both light-duty program vehicles and medium-duty vehicles, starting with model year 2027.
- (1) A vehicle meeting all the requirements of this section is considered a Tier 4 vehicle meeting the Tier 4 standards. Vehicles meeting some but not all requirements are considered interim Tier 4 vehicles as described in paragraph (b)(6)(iv) of this section.
- (2) The Tier 4 standards include testing over a range of driving schedules and ambient temperatures. The standards for 25 °C or 35 °C testing in paragraph (b) of this section apply separate from the -7 °C testing in paragraph (c) of this section. We may identify these standards based on nominal ambient test temperatures. Note that -7 °C testing is also identified as cold temperature testing elsewhere in this subpart.
- (3) See § 86.1813 for evaporative and refueling emission standards.
- (4) See § 86.1818 for greenhouse gas emission standards.
- (b) **Exhaust emission standards for 25 and 35 °C testing.** Exhaust emissions may not exceed standards over several driving cycles as follows:
- (1) Measure emissions using the chassis dynamometer procedures of 40 CFR part 1066, as follows:
- (i) Establish appropriate load settings based on loaded vehicle weight for light-duty program vehicles and adjusted loaded vehicle weight for medium-duty vehicles (see § 86.1803).
- (ii) Emission standards under this paragraph (b) apply for all the following driving cycles unless otherwise specified:

The driving cycle . . .	is identified in . . .
(A) FTP	40 CFR 1066.801(c)(1).



The driving cycle . . .	is identified in . . .
(B) US06	40 CFR 1066.801(c)(2).
(C) SC03	40 CFR 1066.801(c)(3).
(D) HFET	40 CFR 1066.801(c)(5).
(E) ACC II—Mid-temperature intermediate soak	40 CFR 1066.801(c)(8).
(F) ACC II—Early driveaway	40 CFR 1066.801(c)(9).
(G) ACC II High-load PHEV engine starts	40 CFR 1066.801(c)(10).

- (iii) Testing occurs at (20-30) °C ambient temperatures, except that a nominal ambient temperature of 35.0 °C applies for testing over the SC03 driving cycle. See paragraph (c) of this section for emission standards and measurement procedures that apply for cold temperature testing.
- (iv) Hydrocarbon emission standards are expressed as NMOG; however, for certain vehicles you may measure exhaust emissions based on nonmethane hydrocarbon instead of NMOG as described in 40 CFR 1066.635.
- (v) Measure emissions from hybrid electric vehicles (including plug-in hybrid electric vehicles) as described in 40 CFR part 1066, subpart F, except that these procedures do not apply for plug-in hybrid electric vehicles during charge-depleting operation.

(2) Fully phased-in standards apply as specified in the following table:

**TABLE 1—TO PARAGRAPH (b)(2)—FULLY PHASED-IN TIER 4 CRITERIA EXHAUST EMISSION STANDARDS <sup>a</sup>**

	NMOG+NO <sub>x</sub> (mg/mile) <sup>b</sup>	PM (mg/mile) <sup>c</sup>	CO (g/mile) <sup>d</sup>	Formaldehyde (mg/mile) <sup>e</sup>
Light-duty program vehicles	15	0.5	1.7	4

<sup>a</sup> Paragraphs (b)(6) and (f) of this section describe how these standards phase in for model year 2027 and later vehicles.

<sup>b</sup> The NMOG+NO<sub>x</sub> standards apply on a fleet-average basis using discrete bin standards as described in paragraphs (b)(4) and (6) of this section.

<sup>c</sup> PM standards do not apply for the SC03, HFET, and ACC II driving cycles specified in paragraphs (b)(1)(ii)(C) through (G) of this section.

<sup>d</sup> Alternative CO standards of 9.6 and 25 g/mile apply for the US06 driving cycle for light-duty program vehicles and medium-duty vehicles, respectively. CO standards do not apply for the ACC II driving cycles specified in paragraph (b)(1)(ii)(E) through (G) of this section.

<sup>e</sup> Formaldehyde standards apply only for the FTP driving cycle.

	NMOG+NO <sub>x</sub> (mg/mile) <sup>b</sup>	PM (mg/mile) <sup>c</sup>	CO (g/mile) <sup>d</sup>	Formaldehyde (mg/mile) <sup>e</sup>
Medium-duty vehicles	75	0.5	3.2	6

<sup>a</sup> Paragraphs (b)(6) and (f) of this section describe how these standards phase in for model year 2027 and later vehicles.

<sup>b</sup> The NMOG+NO<sub>x</sub> standards apply on a fleet-average basis using discrete bin standards as described in paragraphs (b)(4) and (6) of this section.

<sup>c</sup> PM standards do not apply for the SC03, HFET, and ACC II driving cycles specified in paragraphs (b)(1)(ii)(C) through (G) of this section.

<sup>d</sup> Alternative CO standards of 9.6 and 25 g/mile apply for the US06 driving cycle for light-duty program vehicles and medium-duty vehicles, respectively. CO standards do not apply for the ACC II driving cycles specified in paragraph (b)(1)(ii)(E) through (G) of this section.

<sup>e</sup> Formaldehyde standards apply only for the FTP driving cycle.

- (3) The FTP standards specified in this paragraph (b) apply equally for testing at low-altitude conditions and high-altitude conditions. The US06, SC03, and HFET standards apply only for testing at low-altitude conditions.
- (4) The NMOG+NO<sub>x</sub> emission standard is based on a fleet average for a given model year.
  - (i) You must specify a family emission limit (FEL) for each test group based on the FTP emission standard corresponding to each named bin. The FEL serves as the emission standard for the test group with respect to all specified driving cycles. Calculate your fleet average emission level as described in § 86.1860 to show that you meet the specified fleet average standard. For multi-fueled vehicles, calculate fleet average emission levels based only on emission levels for testing with gasoline or diesel fuel. You may generate emission credits for banking and trading, and you may use banked or traded credits as described in § 86.1861 for demonstrating compliance with the fleet average NMOG+NO<sub>x</sub> emission standard. You comply with the fleet average emission standard for a given model year if you have enough credits to show that your fleet average emission level is at or below the applicable standard.

- (ii) Select one of the identified values from table 2 of this section for demonstrating that your fleet average emission level for light-duty program vehicles complies with the fleet average NMOG+NO<sub>x</sub> emission standard. These FEL values define emission bins that also determine corresponding emission standards for NMOG+NO<sub>x</sub> emission standards for ACC II driving cycles, as follows:

**TABLE 2 TO PARAGRAPH (b)(4)(ii)—TIER 4 NMOG+NO<sub>x</sub> BIN STANDARDS FOR LIGHT-DUTY PROGRAM VEHICLES  
[MG/MILE]**

FEL name	FTP, US06, SC03, HFET	ACC II—Mid-temperature intermediate soak (3-12 hours)	ACC II—Mid-temperature intermediate soak (40 minutes) <sup>a</sup>	ACC II—Mid-temperature intermediate soak (10 minutes)	ACC II—Early driveaway <sup>b</sup>	ACC II—High-power PHEV engine starts <sup>bc</sup>
Bin 70	70	70	54	35	82	200
Bin 65	65	65	50	33	77	188
Bin 60	60	60	46	30	72	175
Bin 55	55	55	42	28	67	163
Bin 50	50	50	38	25	62	150
Bin 45	45	45	35	23	57	138
Bin 40	40	40	31	20	52	125
Bin 35	35	35	27	18	47	113
Bin 30	30	30	23	15	42	100
Bin 25	25	25	19	13	37	84
Bin 20	20	20	15	10	32	67
Bin 15	15	15	12	8	27	51
Bin 10	10	10	8	5	22	34
Bin 5	5	5	4	3	17	17

<sup>a</sup> Calculate the bin standard for a soak time between 10 and 40 minutes based on a linear interpolation between the corresponding bin values for a 10-minute soak and a 40-minute soak. Similarly, calculate the bin standard for a soak time between 40 minutes and 3 hours based on a linear interpolation between the corresponding bin values for a 40-minute soak and a 3-hour soak.

<sup>b</sup> Qualifying vehicles are exempt from standards for early driveaway and high-power PHEV engine starts as described in paragraph (b)(5) of this section.

<sup>c</sup> Alternative standards apply for high-power PHEV engine starts for model years 2027 through 2029 as described in paragraph (b)(6)(v) of this section.

FEL name	FTP, US06, SC03, HFET	ACC II—Mid-temperature intermediate soak (3-12 hours)	ACC II—Mid-temperature intermediate soak (40 minutes) <sup>a</sup>	ACC II—Mid-temperature intermediate soak (10 minutes)	ACC II—Early driveaway <sup>b</sup>	ACC II—High-power PHEV engine starts <sup>bc</sup>
Bin 0	0					

<sup>a</sup> Calculate the bin standard for a soak time between 10 and 40 minutes based on a linear interpolation between the corresponding bin values for a 10-minute soak and a 40-minute soak. Similarly, calculate the bin standard for a soak time between 40 minutes and 3 hours based on a linear interpolation between the corresponding bin values for a 40-minute soak and a 3-hour soak.

<sup>b</sup> Qualifying vehicles are exempt from standards for early driveaway and high-power PHEV engine starts as described in paragraph (b)(5) of this section.

<sup>c</sup> Alternative standards apply for high-power PHEV engine starts for model years 2027 through 2029 as described in paragraph (b)(6)(v) of this section.

- (iii) You may select one of the identified values from table 2 to paragraph (b)(4)(ii) of this section for demonstrating that your fleet average emission level for medium-duty vehicles complies with the fleet average NMOG+NO<sub>x</sub> emission standard. The following additional NMOG+NO<sub>x</sub> bin standards are also available for medium-duty vehicles: 75, 85, 100, 125, 150, and 170 mg/mile. Medium-duty vehicles are not subject to standards based on the ACC II driving cycles specified in paragraphs (b)(1)(ii)(E) through (G) of this section.

(5) Qualifying vehicles are exempt from certain ACC II bin standards as follows:

- (i) Vehicles are exempt from the ACC II bin standards for early driveaway if the vehicle prevents engine starting during the first 20 seconds of a cold-start FTP test interval and the vehicle does not use an electrically heated catalyst or other technology to precondition the engine or emission controls such that NMOG+NO<sub>x</sub> emissions would be higher during the first 505 seconds of the early driveaway driving cycle compared to the first 505 seconds of the conventional FTP driving cycle.
- (ii) Vehicles are exempt from the ACC II bin standards for high-power PHEV engine starts if their all-electric range on the cold-start US06 driving cycles is at or above 10 miles for model years 2027 through 2029, and at or above 40 miles for model year 2030 and later.

(6) The Tier 4 standards phase in over several years, as follows:

- (i) **Light-duty program vehicles.** Include all light-duty program vehicles at or below 6,000 pounds GVWR in the calculation to comply with the Tier 4 fleet average NMOG+NO<sub>x</sub> standard for 25 °C testing in paragraph (b)(2) of this section. You must meet all the other Tier 4 requirements with 20, 40, 60, and 100 percent of your projected nationwide production volumes in model years



2027 through 2030, respectively. A vehicle counts toward meeting the phase-in percentage only if it meets all the requirements of this section. Fleet average NMOG+NO<sub>x</sub> standards apply as follows for model year 2027 through 2032 light-duty program vehicles:

**TABLE 3 TO PARAGRAPH (b)(6)(i)—DECLINING FLEET AVERAGE NMOG+NO<sub>x</sub> STANDARDS FOR LIGHT-DUTY PROGRAM VEHICLES**

Model year	Fleet average NMOG+NO <sub>x</sub> standard (mg/mile)
2027	25
2028	23
2029	21
2030	19
2031	17
2032	15

- (ii) **Default phase-in for vehicles above 6,000 pounds GVWR.** The default approach for phasing in the Tier 4 standards for vehicle above 6,000 pounds GVWR is for all those vehicles to meet the fully phased in Tier 4 standards of this section starting in model year 2030 for light-duty program vehicles and in model year 2031 for medium-duty vehicles. Manufacturers using this default phase-in for medium-duty vehicles may not use credits generated from earlier model years for demonstrating compliance with the Tier 4 NMOG+NO<sub>x</sub> standards under this paragraph (b).
- (iii) **Alternative early phase-in for vehicles above 6,000 pounds GVWR.** Manufacturers may use the following alternative early phase-in provisions to transition to the Tier 4 exhaust emission standards on an earlier schedule for vehicles above 6,000 pounds GVWR.
  - (A) If you select the alternative early phase-in for light-duty program vehicles above 6,000 pounds GVWR, you must demonstrate that you meet the phase-in requirements in paragraph (b)(6)(i) of this section based on all your light-duty program vehicles.
  - (B) If you select the alternative early phase-in for medium-duty vehicles, include all medium-duty vehicles in the calculation to comply with the Tier 4 fleet average NMOG+NO<sub>x</sub> standard starting in model year 2027. You must meet all the other Tier 4 requirements with 20, 40, 60, 80, and 100 percent of a manufacturer's projected nationwide production volumes in model years 2027 through 2031, respectively. A vehicle counts toward meeting

the phase-in percentage only if it meets all the requirements of this section. Medium-duty vehicles complying with the alternative early phase-in are subject to the following fleet average NMOG+NO<sub>x</sub> standards for model years 2027 through 2033:

**TABLE 4 TO PARAGRAPH (b)(6)(iii)(B)—DECLINING FLEET AVERAGE NMOG+NO<sub>x</sub> STANDARDS FOR MEDIUM-DUTY VEHICLES**

Model year	Fleet average NMOG+NO <sub>x</sub> standard (mg/mile)
2027	175
2028	160
2029	140
2030	120
2031	100
2032	80
2033	75

(C) If you select the alternative early phase-in but are unable to meet all the requirements that apply in any model year before model year 2030 for light-duty program vehicles and model year 2031 for medium-duty vehicles, you may switch to the default phase-in. Switching to the default phase-in does not affect certification or compliance obligations for model years before you switch to the default phase-in.

(iv) **Interim Tier 4 vehicles.** Vehicles not meeting all the requirements of this section during the phase-in are considered “interim Tier 4 vehicles”. Interim Tier 4 vehicles are subject to all the requirements of this subpart that apply for Tier 3 vehicles except for the fleet average NMOG+NO<sub>x</sub> standards in §§ 86.1811-17 and 86.1816-18. Interim Tier 4 vehicles may certify to the 25 °C fleet average NMOG+NO<sub>x</sub> standard under this section using all available Tier 3 bins under §§ 86.1811-17 and 86.1816-18. Interim Tier 4 vehicles are subject to the whole collection of Tier 3 bin standards, and they are not subject to any of the Tier 4 bin standards specified in this section. Note that manufacturers complying with the default phase-in specified in paragraph (b)(6)(ii) of this section for Interim Tier 4 light-duty program vehicles above 6,000 pounds GVWR will need to meet a Tier 3 fleet average NMOG+NO<sub>x</sub> standard in model years 2027 through 2029 in addition to the Tier 4 fleet average NMOG+NO<sub>x</sub> standard for vehicles at or below 6,000 pounds GVWR in those same years. Note that emission credits from those Tier 3 and Tier 4 light-duty program vehicles remain in the same averaging set.

- (v) **Phase-in for high-power PHEV engine starts.** The following bin standards apply for high-power PHEV engine starts in model years 2027 through 2029 instead of the analogous standards specified in paragraph (b)(4)(ii) of this section:

**TABLE 5 TO PARAGRAPH (b)(6)(v)—MODEL YEAR 2027 THROUGH 2029 BIN STANDARDS FOR HIGH-POWER PHEV ENGINE STARTS**

FEL name	ACC II— High-power PHEV engine starts (mg/mile)
Bin 70	320
Bin 65	300
Bin 60	280
Bin 55	260
Bin 50	240
Bin 45	220
Bin 40	200
Bin 35	175
Bin 30	150
Bin 25	125
Bin 20	100
Bin 15	75
Bin 10	50
Bin 5	25

- (vi) **MDPV.** Any vehicle that becomes an MDPV as a result of the revised definition in § 86.1803-01 starting in model 2027 remains subject to the heavy-duty Tier 3 standards in § 86.1816-18 under the default phase-in specified in paragraph (b)(6)(ii) of this section for model years 2027 through 2030.

- (vii) Keep records as needed to show that you meet the requirements specified in this paragraph (b) for phasing in standards and for complying with declining fleet average standards.

- (c) **Exhaust emission standards for -7 °C testing.** Exhaust emissions may not exceed standards for -7 °C testing, as follows:

- (1) Measure emissions as described in 40 CFR 1066.801(c)(1) and (6).
- (2) The standards apply to gasoline-fueled and diesel-fueled vehicles, except as specified. Multi-fuel, bi-fuel or dual-fuel vehicles must comply with requirements using only gasoline and diesel fuel, as applicable. Testing with other fuels such as electricity or a high-level ethanol-gasoline blend is not required.

- (3) The following standards apply equally for light-duty program vehicles and medium-duty vehicles:
  - (i) Gasoline-fueled vehicles must meet a fleet average NMOG+NO<sub>x</sub> standard of 300 mg/mile. Calculate fleet average emission levels as described in § 86.1864. There is no NMOG+NO<sub>x</sub> standard for diesel-fueled vehicles, but manufacturers must measure and report emissions as described in § 86.1829-15(g).
  - (ii) The PM standard is 0.5 mg/mile.
  - (iii) The CO standard is 10.0 g/mile.
- (4) The CO standard applies at both low-altitude and high-altitude conditions. The NMOG+NO<sub>x</sub> and PM standards apply only at low-altitude conditions. However, manufacturers must submit an engineering evaluation indicating that common calibration approaches are utilized at high altitudes. Any deviation from low altitude emission control practices must be included in the auxiliary emission control device (AECD) descriptions submitted at certification. Any AECD specific to high altitude must require engineering emission data for EPA evaluation to quantify any emission impact and validity of the AECD.
- (5) Phase-in requirements for standards under this paragraph (c) apply as described in paragraphs (b)(6) and (f) of this section.
- (d) **Special provisions for spark-ignition engines.** The following A/C-on specific calibration provisions apply for vehicles with spark-ignition engines:
  - (1) A/C-on specific calibrations (e.g., air-fuel ratio, spark timing, and exhaust gas recirculation) that differ from A/C-off calibrations may be used for a given set of engine operating conditions (e.g., engine speed, manifold pressure, coolant temperature, air charge temperature, and any other parameters). Such calibrations must not unnecessarily reduce emission control effectiveness during A/C-on operation when the vehicle is operated under conditions that may reasonably be expected during normal operation and use. If emission control effectiveness decreases as a result of such calibrations, the manufacturer must describe in the Application for Certification the circumstances under which this occurs and the reason for using these calibrations.
  - (2) For AECDs involving commanded enrichment, these AECDs must not operate differently for A/C-on operation than for A/C-off operation. This includes both the sensor inputs for triggering enrichment and the degree of enrichment employed.
- (e) **Off-cycle emission standards for high-GCWR vehicles.** Model year 2031 and later medium-duty vehicles above 22,000 pounds GCWR must meet off-cycle emission standards as follows:



- (1) The engine-based off-cycle emission standards in 40 CFR 1036.104(a)(3) apply for vehicles with compression-ignition engines based on measurement procedures with 2-bin moving average windows. Manufacturers may instead meet the following alternative standards for measurement procedures with 3-bin moving average windows:

**TABLE 6 TO PARAGRAPH (e)(1)—ALTERNATIVE OFF-CYCLE STANDARDS FOR HIGH-GCWR VEHICLES WITH COMPRESSION-IGNITION ENGINES <sup>a</sup>**

Off-cycle bin	NO <sub>x</sub> <sup>b</sup>	HC mg/hp·hr	PM mg/hp·hr	CO g/hp·hr
Bin 1	7.5 g/hr			
Bin 2a	75 mg/hp·hr	210	7.5	23.25
Bin 2b	30 mg/hp·hr	210	7.5	23.25

<sup>a</sup> Listed standards include a conformity factor of 1.5. Accuracy margins apply as described in § 86.1845-04(h).

<sup>b</sup> There is no temperature-based adjustment to the off-cycle NO<sub>x</sub> standard for testing with three-bin moving average windows.

- (2) The following emission standards apply for spark-ignition engines:

**TABLE 7 TO PARAGRAPH (e)(2)—OFF-CYCLE EMISSION STANDARDS FOR HIGH-GCWR VEHICLES WITH SPARK-IGNITION ENGINES <sup>a</sup>**

Pollutant	Off-cycle emission standard
NO <sub>x</sub> <sup>b</sup>	30 mg/hp·hr.
HC	210 mg/hp·hr.
PM	7.5 mg/hp·hr.
CO	21.6 g/hp·hr.

<sup>a</sup> Listed standards include a conformity factor of 1.5.

<sup>b</sup> There is no temperature-based adjustment to the off-cycle NO<sub>x</sub> standard for vehicles with spark-ignition engines.

- (3) In-use testing requirements and measurement procedures apply as described in § 86.1845-04(h).

- (f) **Small-volume manufacturers.** Small-volume manufacturers may use the following phase-in provisions for light-duty program vehicles:

- (1) Instead of the 25 °C fleet average NMOG+NO<sub>x</sub> standards specified in this section, small-volume manufacturers may meet alternate fleet average standards of 51 mg/mile for model year 2027 and 30 mg/mile for model years 2028 through 2031. The 15 mg/mile standard applies starting in model year 2032.
- (2) Instead of the phase-in specified in paragraph (b)(6)(i) of this section, small-volume manufacturers may comply with all the requirements of this section other than the NMOG+NO<sub>x</sub> standards starting in model year 2032.

[89 FR 28162, Apr. 18, 2024]

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groups. Credits are calculated according to § 86.1817–05(c), except that the applicable FEL cap listed in § 86.1816–08(a)(1)(ii)(B) or (2)(ii)(B) applies instead of “Std” (the applicable standard).

[66 FR 5192, Jan. 18, 2001, as amended at 79 FR 23725, Apr. 28, 2014]

### **§ 86.1818–12 Greenhouse gas emission standards for light-duty vehicles, light-duty trucks, and medium-duty passenger vehicles.**

(a) *Applicability.* (1) This section contains standards and other regulations applicable to the emission of the air pollutant defined as the aggregate group of six greenhouse gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. This section applies to 2012 and later model year LDV, LDT and MDPV, including multi-fuel vehicles, vehicles fueled with alternative fuels, hybrid electric vehicles, plug-in hybrid electric vehicles, electric vehicles, and fuel cell vehicles. Unless otherwise specified, multi-fuel vehicles must comply with all requirements established for each consumed fuel. The provisions of this section, except paragraph (c), also apply to clean alternative fuel conversions as defined in 40 CFR 85.502, of all model year light-duty vehicles, light-duty trucks, and medium-duty passenger vehicles. Manufacturers that qualify as a small business according to the requirements of § 86.1801–12(j) are exempt from the emission standards in this section. Manufacturers that have submitted a declaration for a model year according to the requirements of § 86.1801–12(k) for which approval has been granted by the Administrator are conditionally exempt from the emission standards in paragraphs (c) through (e) of this section for the approved model year.

(2) The standards specified in this section apply for testing at both low-altitude conditions and high-altitude conditions. However, manufacturers must submit an engineering evaluation indicating that common calibration approaches are utilized at high altitude instead of performing testing for certification, consistent with § 86.1829. Any deviation from low altitude emission control practices must be included

in the auxiliary emission control device (AECD) descriptions submitted at certification. Any AECD specific to high altitude requires engineering emission data for EPA evaluation to quantify any emission impact and determine the validity of the AECD.

(b) *Definitions.* For the purposes of this section, the following definitions shall apply:

(1) *Passenger automobile* means a motor vehicle that is a passenger automobile as that term is defined in 49 CFR 523.4.

(2) *Light truck* means a motor vehicle that is a non-passenger automobile as that term is defined in 49 CFR 523.5.

(3) Manufacturer has the meaning given by the Department of Transportation at 49 CFR 531.4.

(c) *Fleet average CO<sub>2</sub> standards for passenger automobiles and light trucks.* (1) For a given individual model year's production of passenger automobiles and light trucks, manufacturers must comply with a full useful life fleet average CO<sub>2</sub> standard calculated according to the provisions of this paragraph (c). Manufacturers must calculate separate full useful life fleet average CO<sub>2</sub> standards for their passenger automobile and light truck fleets, as those terms are defined in this section. Each manufacturer's fleet average CO<sub>2</sub> standards determined in this paragraph (c) shall be expressed in whole grams per mile, in the model year specified as applicable. Manufacturers eligible for and choosing to participate in the Temporary Leadtime Allowance Alternative Standards for qualifying manufacturers specified in paragraph (e) of this section shall not include vehicles subject to the Temporary Leadtime Allowance Alternative Standards in the calculations of their primary passenger automobile or light truck standards determined in this paragraph (c). Manufacturers shall demonstrate compliance with the applicable standards according to the provisions of § 86.1865.

(2) *Passenger automobiles—(i) Calculation of CO<sub>2</sub> target values for passenger automobiles.* A CO<sub>2</sub> target value shall be determined for each passenger automobile as follows:

(A) For passenger automobiles with a footprint of less than or equal to 41 square feet, the gram/mile CO<sub>2</sub> target

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value shall be selected for the appropriate model year from the following table:

TABLE 1 TO § 86.1818–12(c)(2)(i)(A)

Model year	CO <sub>2</sub> target value (grams/mile)
2012 .....	244.0
2013 .....	237.0
2014 .....	228.0
2015 .....	217.0
2016 .....	206.0
2017 .....	195.0
2018 .....	185.0
2019 .....	175.0
2020 .....	166.0
2021 .....	161.8
2022 .....	159.0
2023 .....	145.6
2024 .....	138.6
2025 .....	130.5
2026 and later .....	114.3

(B) For passenger automobiles with a footprint of greater than 56 square feet, the gram/mile CO<sub>2</sub> target value shall be selected for the appropriate model year from the following table:

TABLE 2 TO § 86.1818–12(c)(2)(i)(B)

Model year	CO <sub>2</sub> target value (grams/mile)
2012 .....	315.0
2013 .....	307.0
2014 .....	299.0
2015 .....	288.0
2016 .....	277.0
2017 .....	263.0
2018 .....	250.0
2019 .....	238.0
2020 .....	226.0
2021 .....	220.9
2022 .....	217.3
2023 .....	199.1
2024 .....	189.5
2025 .....	179.4
2026 and later .....	160.9

(C) For passenger automobiles with a footprint that is greater than 41 square feet and less than or equal to 56 square feet, the gram/mile CO<sub>2</sub> target value shall be calculated using the following equation and rounded to the nearest 0.1 gram/mile:

$$\text{Target CO}_2 = [a \times f] + b$$

Where:

$f$  is the vehicle footprint, as defined in § 86.1803; and  $a$  and  $b$  are selected from the following table for the appropriate model year:

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TABLE 3 TO § 86.1818–12(c)(2)(i)(C)

Model year	A	B
2012 .....	4.72	50.5
2013 .....	4.72	43.3
2014 .....	4.72	34.8
2015 .....	4.72	23.4
2016 .....	4.72	12.7
2017 .....	4.53	8.9
2018 .....	4.35	6.5
2019 .....	4.17	4.2
2020 .....	4.01	1.9
2021 .....	3.94	0.2
2022 .....	3.88	–0.1
2023 .....	3.56	–0.4
2024 .....	3.39	–0.4
2025 .....	3.26	–3.2
2026 and later .....	3.11	–13.1

(ii) *Calculation of the fleet average CO<sub>2</sub> standard for passenger automobiles.* In each model year manufacturers must comply with the CO<sub>2</sub> exhaust emission standard for their passenger automobile fleet, calculated for that model year as follows:

(A) A CO<sub>2</sub> target value shall be determined according to paragraph (c)(2)(i) of this section for each unique combination of model type and footprint value.

(B) Each CO<sub>2</sub> target value, determined for each unique combination of model type and footprint value, shall be multiplied by the total production of that model type/footprint combination for the appropriate model year.

(C) The resulting products shall be summed, and that sum shall be divided by the total production of passenger automobiles in that model year. The result shall be rounded to the nearest whole gram per mile. This result shall be the applicable fleet average CO<sub>2</sub> standard for the manufacturer's passenger automobile fleet.

(3) *Light trucks*—(i) *Calculation of CO<sub>2</sub> target values for light trucks.* A CO<sub>2</sub> target value shall be determined for each light truck as follows:

(A) For light trucks with a footprint of less than or equal to 41 square feet, the gram/mile CO<sub>2</sub> target value shall be selected for the appropriate model year from the following table:

TABLE 4 TO § 86.1818–12(c)(3)(i)(A)

Model year	CO <sub>2</sub> target value (grams/mile)
2012 .....	294.0
2013 .....	284.0
2014 .....	275.0



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TABLE 4 TO § 86.1818–12(c)(3)(i)(A)—  
Continued

Model year	CO <sub>2</sub> target value (grams/mile)
2015 .....	261.0
2016 .....	247.0
2017 .....	238.0
2018 .....	227.0
2019 .....	220.0
2020 .....	212.0
2021 .....	206.5
2022 .....	203.0
2023 .....	181.1
2024 .....	172.1
2025 .....	159.3
2026 and later .....	141.8

(B) For light trucks with a footprint that is greater than 41 square feet and less than or equal to the maximum footprint value specified in the table below for each model year, the gram/mile CO<sub>2</sub> target value shall be calculated using the following equation and rounded to the nearest 0.1 gram/mile, except as specified in paragraph (c)(3)(i)(D) of this section:

$$\text{Target CO}_2 = (a \times f) + b$$

Where:

$f$  is the footprint, as defined in § 86.1803; and  $a$  and  $b$  are selected from the following table for the appropriate model year:

TABLE 5 TO § 86.1818–12(c)(3)(i)(B)

Model year	Maximum footprint	A	B
2012 .....	66.0	4.04	128.6
2013 .....	66.0	4.04	118.7
2014 .....	66.0	4.04	109.4
2015 .....	66.0	4.04	95.1
2016 .....	66.0	4.04	81.1
2017 .....	50.7	4.87	38.3
2018 .....	60.2	4.76	31.6
2019 .....	66.4	4.68	27.7
2020 .....	68.3	4.57	24.6
2021 .....	68.3	4.51	21.5
2022 .....	68.3	4.44	20.6
2023 .....	74.0	3.97	18.4
2024 .....	74.0	3.77	17.4
2025 .....	74.0	3.58	12.5
2026 and later .....	74.0	3.41	1.9

(C) For light trucks with a footprint that is greater than the minimum footprint value specified in the table below and less than or equal to the maximum footprint value specified in the table below for each model year, the gram/mile CO<sub>2</sub> target value shall be calculated using the following equation

and rounded to the nearest 0.1 gram/mile, except as specified in paragraph (c)(3)(i)(D) of this section:

$$\text{Target CO}_2 = (a \times f) + b$$

Where:

$f$  is the footprint, as defined in § 86.1803; and  $a$  and  $b$  are selected from the following table for the appropriate model year:

TABLE 6 TO § 86.1818–12(c)(3)(i)(C)

Model year	Minimum footprint	Maximum footprint	A	b
2017 .....	50.7	66.0	4.04	80.5
2018 .....	60.2	66.0	4.04	75.0

(D) For light trucks with a footprint greater than the minimum value specified in the table below for each model year, the gram/mile CO<sub>2</sub> target value shall be selected for the appropriate model year from the following table:

TABLE 7 TO § 86.1818–12(c)(3)(i)(D)

Model year	Minimum footprint	CO <sub>2</sub> target value (grams/mile)
2012 .....	66.0	395.0
2013 .....	66.0	385.0
2014 .....	66.0	376.0
2015 .....	66.0	362.0

TABLE 7 TO § 86.1818–12(c)(3)(i)(D)—  
Continued

Model year	Minimum footprint	CO <sub>2</sub> target value (grams/mile)
2016 .....	66.0	348.0
2017 .....	66.0	347.0
2018 .....	66.0	342.0
2019 .....	66.4	339.0
2020 .....	68.3	337.0
2021 .....	68.3	329.4
2022 .....	68.3	324.1
2023 .....	74.0	312.1
2024 .....	74.0	296.5
2025 .....	74.0	277.4
2026 and later .....	74.0	254.4

(ii) *Calculation of fleet average CO<sub>2</sub> standards for light trucks.* In each model year manufacturers must comply with the CO<sub>2</sub> exhaust emission standard for their light truck fleet, calculated for that model year as follows:

(A) A CO<sub>2</sub> target value shall be determined according to paragraph (c)(3)(i) of this section for each unique combination of model type and footprint value.

(B) Each CO<sub>2</sub> target value, which represents a unique combination of model type and footprint value, shall be multiplied by the total production of that model type/footprint combination for the appropriate model year.

(C) The resulting products shall be summed, and that sum shall be divided by the total production of light trucks in that model year. The result shall be rounded to the nearest whole gram per mile. This result shall be the applicable fleet average CO<sub>2</sub> standard for the manufacturer's light truck fleet.

(4) *Emergency vehicles.* Emergency vehicles may be excluded from the emission standards described in this section. The manufacturer must notify the Administrator that they are making such an election in the model year reports required under § 600.512 of this chapter. Such vehicles should be excluded from both the calculation of the fleet average standard for a manufacturer under this paragraph (c) and from the calculation of the fleet average carbon-related exhaust emissions in § 600.510–12.

(d) *In-use CO<sub>2</sub> exhaust emission standards.* The in-use CO<sub>2</sub> exhaust emission standard shall be the combined city/highway carbon-related exhaust emission value calculated for the appropriate

vehicle carline/subconfiguration according to the provisions of § 600.113–12(g)(4) of this chapter adjusted by the deterioration factor from § 86.1823–08(m). Multiply the result by 1.1 and round to the nearest whole gram per mile. For in-use vehicle carlines/sub-configurations for which a combined city/highway carbon-related exhaust emission value was not determined under § 600.113–12(g)(4) of this chapter, the in-use CO<sub>2</sub> exhaust emission standard shall be the combined city/highway carbon-related exhaust emission value calculated according to the provisions of § 600.208 of this chapter for the vehicle model type (except that total model year production data shall be used instead of sales projections) adjusted by the deterioration factor from § 86.1823–08(m). Multiply the result by 1.1 and round to the nearest whole gram per mile. For vehicles that are capable of operating on multiple fuels, except plug-in hybrid electric vehicles, a separate in-use standard shall be determined for each fuel that the vehicle is capable of operating on. The standards in this paragraph (d) apply to in-use testing performed by the manufacturer pursuant to regulations at §§ 86.1845 and 86.1846 and to in-use testing performed by EPA.

(e) *Temporary Lead Time Allowance Alternative Standards.* (1) The interim fleet average CO<sub>2</sub> standards in this paragraph (e) are optionally applicable to each qualifying manufacturer, where the terms “sales” or “sold” as used in this paragraph (e) means vehicles produced for U.S. sale, where “U.S.” means the states and territories of the United States.

(i) A qualifying manufacturer is a manufacturer with sales of 2009 model year combined passenger automobiles and light trucks of greater than zero and less than 400,000 vehicles that elects to participate in the Temporary Leadtime Allowance Alternative Standards described in this paragraph (e).

(A) If a manufacturer sold less than 400,000 but more than zero 2009 model year combined passenger automobiles and light trucks while under the control of another manufacturer, where those 2009 model year passenger automobiles and light trucks bore the

brand of the producing manufacturer, and where the producing manufacturer became independent no later than December 31, 2010, the producing manufacturer is a qualifying manufacturer.

(B) In the case where two or more qualifying manufacturers combine as the result of merger or the purchase of 50 percent or more of one or more companies by another company, and if the combined 2009 model year sales of the merged or combined companies is less than 400,000 but more than zero (combined passenger automobiles and light trucks), the corporate entity formed by the combination of two or more qualifying manufacturers shall continue to be a qualifying manufacturer, except the provisions of paragraph (e)(1)(i)(D) shall apply in the case where one of the merging companies elects to voluntarily opt out of the Temporary Leadtime Allowance Alternative Standards as allowed under paragraph (e)(1)(iv) of this section. The total number of vehicles that the corporate entity is allowed to include under the Temporary Leadtime Allowance Alternative Standards shall be determined by paragraph (e)(2) or (e)(3) of this section, where sales is the total combined 2009 model year sales of all of the merged or combined companies. Vehicles sold by the companies that combined by merger/acquisition to form the corporate entity that were subject to the Temporary Leadtime Allowance Alternative Standards in paragraph (e)(4) of this section prior to the merger/acquisition shall be combined to determine the remaining number of vehicles that the corporate entity may include under the Temporary Leadtime Allowance Alternative Standards in this paragraph (e).

(C) In the case where two or more manufacturers combine as the result of merger or the purchase of 50 percent or more of one or more companies by another company, and if the combined 2009 model year sales of the merged or combined companies is equal to or greater than 400,000 (combined passenger automobiles and light trucks), the new corporate entity formed by the combination of two or more manufacturers is not a qualifying manufacturer. Such a manufacturer shall meet the emission standards in paragraph (c)

of this section beginning with the model year that is numerically two years greater than the calendar year in which the merger/acquisition(s) took place.

(D) In the case where two or more manufacturers combine as the result of merger or the purchase of 50 percent or more of one or more companies by another company, where one of the manufacturers chooses to voluntarily opt out of the Temporary Leadtime Allowance Alternative Standards under the provisions of paragraph (e)(1)(iv) of this section, the new corporate entity formed by the combination of two or more manufacturers is not a qualifying manufacturer. Such a manufacturer shall meet the emission standards in paragraph (c) of this section beginning with the model year that is numerically two years greater than the calendar year in which the merger/acquisition(s) took place. If one or more of the merged or combined manufacturers was complying with the Temporary Leadtime Allowance Alternative Standards prior to the merger/com-bination, that manufacturer is no longer eligible for the Temporary Leadtime Allowance Alternative Standards beginning with the model year that is numerically two years greater than the calendar year in which the merger/acquisition(s) took place. The cumulative number of vehicles that such a manufacturer may include in the Temporary Leadtime Allowance Alternative Standards, including those that were included by all merged manufacturers prior to the merger/acquisition, is limited to 100,000.

(ii) For the purposes of making the determination in paragraph (e)(1)(i) of this section, “manufacturer” shall mean that term as defined at 49 CFR 531.4 and as that definition was applied to the 2009 model year for the purpose of determining compliance with the 2009 corporate average fuel economy standards at 49 CFR parts 531 and 533.

(iii) A qualifying manufacturer may not use these Temporary Leadtime Allowance Alternative Standards until they have used all available banked credits and/or credits available for transfer accrued under § 86.1865-12(k). A qualifying manufacturer with a net

positive credit balance calculated under § 86.1865–12(k) in any model year after considering all available credits either generated, carried forward from a prior model year, transferred from other averaging sets, or obtained from other manufacturers, may not use these Temporary Leadtime Allowance Alternative Standards in such model year.

(iv) In the event of a merger, acquisition, or combination with another manufacturer, a qualifying manufacturer that has not certified any vehicles to the Temporary Leadtime Allowance Alternative Standards in any model year may voluntarily opt out of the Temporary Leadtime Allowance Alternative Standards. A manufacturer making this election must notify EPA in writing of their intent prior to the end of the model year in which a merger or combination with another manufacturer becomes effective. The notification must indicate that the manufacturer is electing to not use the Temporary Leadtime Allowance Alternative Standards in any model year, and that any manufacturers that are either purchased by or merged with the manufacturer making this election must also meet the emission standards in paragraph (c) of this section beginning with the model year that is numerically two years greater than the calendar year in which the merger/acquisition(s) took place.

(2) Qualifying manufacturers may select any combination of 2012 through 2015 model year passenger automobiles and/or light trucks to include under the Temporary Leadtime Allowance Alternative Standards determined in this paragraph (e) up to a cumulative total of 100,000 vehicles. Vehicles selected to comply with these standards shall not be included in the calculations of the manufacturer's fleet average standards under paragraph (c) of this section.

(3)(i) Qualifying manufacturers with sales of 2009 model year combined passenger automobiles and light trucks in the United States of greater than zero and less than 50,000 vehicles may select any combination of 2012 through 2015 model year passenger automobiles and/or light trucks to include under the Temporary Leadtime Allowance Alternative

Standards determined in this paragraph (e) up to a cumulative total of 200,000 vehicles, and additionally may select up to 50,000 2016 model year vehicles to include under the Temporary Leadtime Allowance Alternative Standards determined in this paragraph (e). To be eligible for the provisions of this paragraph (e)(3) qualifying manufacturers must provide annual documentation of good-faith efforts made by the manufacturer to purchase credits from other manufacturers. Without such documentation, the manufacturer may use the Temporary Leadtime Allowance Alternative Standards according to the provisions of paragraph (e)(2) of this section, and the provisions of this paragraph (e)(3) shall not apply. Vehicles selected to comply with these standards shall not be included in the calculations of the manufacturer's fleet average standards under paragraph (c) of this section.

(ii) Manufacturers that qualify in the 2016 model year for the expanded Temporary Leadtime Allowance Alternative Standards described in paragraph (e)(3)(i) of this section, may, subject to certain restrictions, use an alternative compliance schedule that provides additional lead time to meet the standards in paragraph (c) of this section for the 2017 through 2020 model years.

(A) The alternative compliance schedule is as described in this paragraph (e)(3)(ii)(A). In lieu of the standards in paragraph (c) of this section that would otherwise be applicable to the model year shown in the first column of table 8 to § 86.1818–12(e)(3)(ii)(A), a qualifying manufacturer may comply with the standards in paragraph (c) of this section determined for the model year shown in the second column of the table. In the 2021 and later model years the manufacturer must meet the standards designated for each model year in paragraph (c) of this section. Table 8 to § 86.1818–12(e)(3)(ii)(A) follows:

TABLE 8 TO § 86.1818–12(e)(3)(ii)(A)

Model year	Applicable standards
2017 .....	2016
2018 .....	2016
2019 .....	2018
2020 .....	2019



(B) A manufacturer using the alternative compliance schedule in paragraph (e)(3)(ii) of this section may not sell or otherwise transfer credits generated in years when the alternative phase-in is used to other manufacturers. Other provisions in § 86.1865 regarding credit banking, deficit carry-forward, and within-manufacturer transfers across fleets apply.

(4) To calculate the applicable Temporary Leadtime Allowance Alternative Standards, qualifying manufacturers shall determine the fleet average standard separately for the passenger automobiles and light trucks selected by the manufacturer to be subject to the Temporary Leadtime Allowance Alternative Standards, subject to the limitations expressed in paragraphs (e)(1) through (3) of this section.

(i) The Temporary Leadtime Allowance Alternative Standard applicable to qualified passenger automobiles as defined in § 600.002–08 of this chapter shall be the standard calculated using the provisions of paragraph (c)(2)(ii) of this section for the appropriate model year multiplied by 1.25 and rounded to the nearest whole gram per mile. For the purposes of applying paragraph (c)(2)(ii) of this section to determine the standard, the passenger automobile fleet shall be limited to those passenger automobiles subject to the Temporary Leadtime Allowance Alternative Standard.

(ii) The Temporary Leadtime Allowance Alternative Standard applicable to qualified light trucks (*i.e.* non-passenger automobiles as defined in § 600.002–08 of this chapter) shall be the standard calculated using the provisions of paragraph (c)(3)(ii) of this section for the appropriate model year multiplied by 1.25 and rounded to the nearest whole gram per mile. For the purposes of applying paragraph (c)(3)(ii) of this section to determine the standard, the light truck fleet shall be limited to those light trucks subject to the Temporary Leadtime Allowance Alternative Standard.

(5) Manufacturers choosing to optionally apply these standards are subject to the restrictions on credit banking and trading specified in § 86.1865–12.

(f) *Nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>) exhaust emission standards for pas-*

*senger automobiles and light trucks.* Each manufacturer's fleet of combined passenger automobiles and light trucks must comply with N<sub>2</sub>O and CH<sub>4</sub> standards using either the provisions of paragraph (f)(1), (2), or (3) of this section. Except with prior EPA approval, a manufacturer may not use the provisions of both paragraphs (f)(1) and (2) of this section in a model year. For example, a manufacturer may not use the provisions of paragraph (f)(1) of this section for their passenger automobile fleet and the provisions of paragraph (f)(2) for their light truck fleet in the same model year. The manufacturer may use the provisions of both paragraphs (f)(1) and (3) of this section in a model year. For example, a manufacturer may meet the N<sub>2</sub>O standard in paragraph (f)(1)(i) of this section and an alternative CH<sub>4</sub> standard determined under paragraph (f)(3) of this section. Vehicles certified using the N<sub>2</sub>O data submittal waiver provisions of § 86.1829(b)(1)(iii)(G) are not required to be tested for N<sub>2</sub>O under the in-use testing programs required by § 86.1845 and § 86.1846.

(1) *Standards applicable to each test group.* (i) Exhaust emissions of nitrous oxide (N<sub>2</sub>O) shall not exceed 0.010 grams per mile at full useful life, as measured according to the Federal Test Procedure (FTP) described in subpart B of this part. Manufacturers may optionally determine an alternative N<sub>2</sub>O standard under paragraph (f)(3) of this section. (ii) Exhaust emissions of methane (CH<sub>4</sub>) shall not exceed 0.030 grams per mile at full useful life, as measured according to the Federal Test Procedure (FTP) described in subpart B of this part. Manufacturers may optionally determine an alternative CH<sub>4</sub> standard under paragraph (f)(3) of this section.

(2) *Include N<sub>2</sub>O and CH<sub>4</sub> in fleet averaging program.* Manufacturers may elect to not meet the emission standards in paragraph (f)(1) of this section. Manufacturers making this election shall include N<sub>2</sub>O and CH<sub>4</sub> emissions in the determination of their fleet average carbon-related exhaust emissions, as calculated in 40 CFR part 600, subpart F. Manufacturers using this option must include both N<sub>2</sub>O and CH<sub>4</sub>

full useful life values in the fleet average calculations for passenger automobiles and light trucks. Use of this option will account for N<sub>2</sub>O and CH<sub>4</sub> emissions within the carbon-related exhaust emission value determined for each model type according to the provisions of 40 CFR part 600. This option requires the determination of full useful life emission values for both the Federal Test Procedure and the Highway Fuel Economy Test. Manufacturers selecting this option are not required to demonstrate compliance with the standards in paragraph (f)(1) of this section.

(3) *Optional use of alternative N<sub>2</sub>O and/or CH<sub>4</sub> standards.* Manufacturers may select an alternative standard applicable to a test group, for either N<sub>2</sub>O or CH<sub>4</sub>, or both. For example, a manufacturer may choose to meet the N<sub>2</sub>O standard in paragraph (f)(1)(i) of this section and an alternative CH<sub>4</sub> standard in lieu of the standard in paragraph (f)(1)(ii) of this section. The alternative standard for each pollutant must be greater than the applicable exhaust emission standard specified in paragraph (f)(1) of this section. Alternative N<sub>2</sub>O and CH<sub>4</sub> standards apply to emissions measured according to the Federal Test Procedure (FTP) described in Subpart B of this part for the full useful life, and become the applicable certification and in-use emission standard(s) for the test group. Manufacturers using an alternative standard for N<sub>2</sub>O and/or CH<sub>4</sub> must calculate emission debits according to the provisions of paragraph (f)(4) of this section for each test group/alternative standard combination. Debits must be included in the calculation of total credits or debits generated in a model year as required under § 86.1865-12(k)(5). For flexible fuel vehicles (or other vehicles certified for multiple fuels) you must meet these alternative standards when tested on any applicable test fuel type.

(4) *CO<sub>2</sub>-equivalent debits.* CO<sub>2</sub>-equivalent debits for test groups using an alternative N<sub>2</sub>O and/or CH<sub>4</sub> standard as determined under paragraph (f)(3) of this section shall be calculated according to the following equation and rounded to the nearest whole megagram:

$$\text{Debits} = [\text{GWP} \times (\text{Production}) \times (\text{AltStd} - \text{Std}) \times \text{VLM}] \div 1,000,000$$

Where:

Debits = CO<sub>2</sub>-equivalent debits for N<sub>2</sub>O or CH<sub>4</sub>, in Megagrams, for a test group using an alternative N<sub>2</sub>O or CH<sub>4</sub> standard, rounded to the nearest whole Megagram;

GWP = 25 if calculating CH<sub>4</sub> debits and 298 if calculating N<sub>2</sub>O debits;

Production = The number of vehicles of that test group domestically produced plus those imported as defined in § 600.511 of this chapter;

AltStd = The alternative standard (N<sub>2</sub>O or CH<sub>4</sub>) selected by the manufacturer under paragraph (f)(3) of this section;

Std = The exhaust emission standard for N<sub>2</sub>O or CH<sub>4</sub> specified in paragraph (f)(1) of this section; and

VLM = 195,264 for passenger automobiles and 225,865 for light trucks.

(g) *Alternative fleet average standards for manufacturers with limited U.S. sales.* Manufacturers meeting the criteria in this paragraph (g) may request that the Administrator establish alternative fleet average CO<sub>2</sub> standards that would apply instead of the standards in paragraph (c) of this section. The provisions of this paragraph (g) are applicable only to the 2017 and later model years. A manufacturer that has sought and received EPA approval for alternative standards for the 2017 model year may, at their option, choose to comply with those standards in the 2015 and 2016 model years in lieu of requesting a conditional exemption under § 86.1801(k).

(1) *Eligibility for alternative standards.* Eligibility as determined in this paragraph (g) shall be based on the total sales of combined passenger automobiles and light trucks. The terms “sales” and “sold” as used in this paragraph (g) shall mean vehicles produced for U.S. sale, where “U.S.” means the states and territories of the United States. For the purpose of determining eligibility the sales of related companies shall be aggregated according to the provisions of § 86.1838-01(b)(3), or, if a manufacturer has been granted operational independence status under § 86.1838(d), eligibility shall be based on vehicle production of that manufacturer. To be eligible for alternative standards established under this paragraph (g), the manufacturer’s average

sales for the three most recent consecutive model years must remain below 5,000. If a manufacturer's average sales for the three most recent consecutive model years exceeds 4999, the manufacturer will no longer be eligible for exemption and must meet applicable emission standards starting with the model year according to the provisions in this paragraph (g)(1).

(i) If a manufacturer's average sales for three consecutive model years exceeds 4999, and if the increase in sales is the result of corporate acquisitions, mergers, or purchase by another manufacturer, the manufacturer shall comply with the emission standards described in paragraph (c) of this section, as applicable, beginning with the first model year after the last year of the three consecutive model years.

(ii) If a manufacturer's average sales for three consecutive model years exceeds 4999 and is less than 50,000, and if the increase in sales is solely the result of the manufacturer's expansion in vehicle production (not the result of corporate acquisitions, mergers, or purchase by another manufacturer), the manufacturer shall comply with the emission standards described in paragraph (c), of this section, as applicable, beginning with the second model year after the last year of the three consecutive model years.

(2) *Requirements for new entrants into the U.S. market.* New entrants are those manufacturers without a prior record of automobile sales in the United States and without prior certification to (or exemption from, under §86.1801-12(k)) greenhouse gas emission standards in §86.1818-12. In addition to the eligibility requirements stated in paragraph (g)(1) of this section, new entrants must meet the following requirements:

(i) In addition to the information required under paragraph (g)(4) of this section, new entrants must provide documentation that shows a clear intent by the company to actually enter the U.S. market in the years for which alternative standards are requested. Demonstrating such intent could include providing documentation that shows the establishment of a U.S. dealer network, documentation of work underway to meet other U.S. require-

ments (e.g., safety standards), or other information that reasonably establishes intent to the satisfaction of the Administrator.

(ii) Sales of vehicles in the U.S. by new entrants must remain below 5,000 vehicles for the first three model years in the U.S. market, and in subsequent years the average sales for any three consecutive years must remain below 5,000 vehicles. Vehicles sold in violation of these limits within the first five model years will be considered not covered by the certificate of conformity and the manufacturer will be subject to penalties on an individual-vehicle basis for sale of vehicles not covered by a certificate. In addition, violation of these limits will result in loss of eligibility for alternative standards until such point as the manufacturer demonstrates two consecutive model years of sales below 5,000 automobiles. After the first five model years, the eligibility provisions in paragraph (g)(1) of this section apply, where violating the sales thresholds is no longer a violation of the condition on the certificate, but is instead grounds for losing eligibility for alternative standards.

(iii) A manufacturer with sales in the most recent model year of less than 5,000 automobiles, but where prior model year sales were not less than 5,000 automobiles, is eligible to request alternative standards under this paragraph (g). However, such a manufacturer will be considered a new entrant and subject to the provisions regarding new entrants in this paragraph (g), except that the requirement to demonstrate an intent to enter the U.S. market in paragraph (g)(2)(i) of this section shall not apply.

(3) *How to request alternative fleet average standards.* Eligible manufacturers may petition for alternative standards for up to five consecutive model years if sufficient information is available on which to base such standards.

(i) To request alternative standards starting with the 2017 model year, eligible manufacturers must submit a completed application no later than July 30, 2013.

(ii) To request alternative standards starting with a model year after 2017, eligible manufacturers must submit a completed request no later than 36

months prior to the start of the first model year to which the alternative standards would apply.

(iii) The request must contain all the information required in paragraph (g)(4) of this section, and must be signed by a chief officer of the company. If the Administrator determines that the content of the request is incomplete or insufficient, the manufacturer will be notified and given an additional 30 days to amend the request.

(4) *Data and information submittal requirements.* Eligible manufacturers requesting alternative standards under this paragraph (g) must submit the following information to the Environmental Protection Agency. The Administrator may request additional information as she deems appropriate. The completed request must be sent to the Environmental Protection Agency at the following address: Director, Compliance and Innovative Strategies Division, U.S. Environmental Protection Agency, 2000 Traverwood Drive, Ann Arbor, Michigan 48105.

(i) *Vehicle model and fleet information.* (A) The model years to which the requested alternative standards would apply, limited to five consecutive model years.

(B) Vehicle models and projections of production volumes for each model year.

(C) Detailed description of each model, including the vehicle type, vehicle mass, power, footprint, powertrain, and expected pricing.

(D) The expected production cycle for each model, including new model introductions and redesign or refresh cycles.

(ii) *Technology evaluation information.* (A) The CO<sub>2</sub> reduction technologies employed by the manufacturer on each vehicle model, or projected to be employed, including information regarding the cost and CO<sub>2</sub> -reducing effectiveness. Include technologies that improve air conditioning efficiency and reduce air conditioning system leakage, and any “off-cycle” technologies that potentially provide benefits outside the operation represented by the Federal Test Procedure and the Highway Fuel Economy Test.

(B) An evaluation of comparable models from other manufacturers, including CO<sub>2</sub> results and air condi-

tioning credits generated by the models. Comparable vehicles should be similar, but not necessarily identical, in the following respects: vehicle type, horsepower, mass, power-to-weight ratio, footprint, retail price, and any other relevant factors. For manufacturers requesting alternative standards starting with the 2017 model year, the analysis of comparable vehicles should include vehicles from the 2012 and 2013 model years, otherwise the analysis should at a minimum include vehicles from the most recent two model years.

(C) A discussion of the CO<sub>2</sub>-reducing technologies employed on vehicles offered outside of the U.S. market but not available in the U.S., including a discussion as to why those vehicles and/or technologies are not being used to achieve CO<sub>2</sub> reductions for vehicles in the U.S. market.

(D) An evaluation, at a minimum, of the technologies projected by the Environmental Protection Agency in a final rulemaking as those technologies likely to be used to meet greenhouse gas emission standards and the extent to which those technologies are employed or projected to be employed by the manufacturer. For any technology that is not projected to be fully employed, explain why this is the case.

(iii) *Alternative fleet average CO<sub>2</sub> standards.* (A) The most stringent CO<sub>2</sub> level estimated to be feasible for each model, in each model year, and the technological basis for this estimate.

(B) For each model year, a projection of the lowest feasible sales-weighted fleet average CO<sub>2</sub> value, separately for passenger automobiles and light trucks, and an explanation demonstrating that these projections are reasonable.

(C) A copy of any application, data, and related information submitted to NHTSA in support of a request for alternative Corporate Average Fuel Economy standards filed under 49 CFR Part 525.

(iv) *Information supporting eligibility.* (A) U.S. sales for the three previous model years and projected sales for the model years for which the manufacturer is seeking alternative standards.



(B) Information regarding ownership relationships with other manufacturers, including details regarding the application of the provisions of § 86.1838-01(b)(3) regarding the aggregation of sales of related companies,

(5) *Alternative standards.* Upon receiving a complete application, the Administrator will review the application and determine whether an alternative standard is warranted. If the Administrator judges that an alternative standard is warranted, the Administrator will publish a proposed determination in the FEDERAL REGISTER to establish alternative standards for the manufacturer that the Administrator judges are appropriate. Following a 30 day public comment period, the Administrator will issue a final determination establishing alternative standards for the manufacturer. If the Administrator does not establish alternative standards for an eligible manufacturer prior to 12 months before the first model year to which the alternative standards would apply, the manufacturer may request an extension of the exemption under § 86.1801-12(k) or an extension of previously approved alternative standards, whichever may apply.

(6) *Restrictions on credit trading.* Manufacturers subject to alternative standards approved by the Administrator under this paragraph (g) may not trade credits to another manufacturer. Transfers between car and truck fleets within the manufacturer are allowed, and the carry-forward provisions for credits and deficits apply.

(h) *Mid-term evaluation of standards.* No later than April 1, 2018, the Administrator shall determine whether the standards established in paragraph (c) of this section for the 2022 through 2025 model years are appropriate under section 202(a) of the Clean Air Act, in light of the record then before the Administrator. An opportunity for public comment shall be provided before making such determination. If the Administrator determines they are not appropriate, the Administrator shall initiate a rulemaking to revise the standards, to be either more or less stringent as appropriate.

(1) In making the determination required by this paragraph (h), the Ad-

ministrator shall consider the information available on the factors relevant to setting greenhouse gas emission standards under section 202(a) of the Clean Air Act for model years 2022 through 2025, including but not limited to:

(i) The availability and effectiveness of technology, and the appropriate lead time for introduction of technology;

(ii) The cost on the producers or purchasers of new motor vehicles or new motor vehicle engines;

(iii) The feasibility and practicability of the standards;

(iv) The impact of the standards on reduction of emissions, oil conservation, energy security, and fuel savings by consumers;

(v) The impact of the standards on the automobile industry;

(vi) The impacts of the standards on automobile safety;

(vii) The impact of the greenhouse gas emission standards on the Corporate Average Fuel Economy standards and a national harmonized program; and

(viii) The impact of the standards on other relevant factors.

(2) The Administrator shall make the determination required by this paragraph (h) based upon a record that includes the following:

(i) A draft Technical Assessment Report addressing issues relevant to the standard for the 2022 through 2025 model years;

(ii) Public comment on the draft Technical Assessment Report;

(iii) Public comment on whether the standards established for the 2022 through 2025 model years are appropriate under section 202(a) of the Clean Air Act; and

(iv) Such other materials the Administrator deems appropriate.

(3) No later than November 15, 2017, the Administrator shall issue a draft Technical Assessment Report addressing issues relevant to the standards for the 2022 through 2025 model years.

(4) The Administrator will set forth in detail the bases for the determination required by this paragraph (h), including the Administrator's assessment of each of the factors listed in paragraph (h)(1) of this section.

[75 FR 25686, May 7, 2010, as amended at 76 FR 19874, Apr. 8, 2011; 76 FR 39521, July 6, 2011; 76 FR 57377, Sept. 15, 2011; 77 FR 63156, Oct. 15, 2012; 79 FR 23725, Apr. 28, 2014; 81 FR 73985, Oct. 25, 2016; 85 FR 25268, Apr. 30, 2020; 86 FR 34371, June 29, 2021; 86 FR 74522, Dec. 30, 2021]

**§ 86.1819-14 Greenhouse gas emission standards for heavy-duty vehicles.**

This section describes exhaust emission standards for CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O for heavy-duty vehicles. The standards of this section apply for model year 2014 and later vehicles that are chassis-certified with respect to criteria pollutants under this subpart S. Additional heavy-duty vehicles may be optionally subject to the standards of this section as allowed under paragraph (j) of this section. Any heavy-duty vehicles not subject to standards under this section are instead subject to greenhouse gas standards under 40 CFR part 1037, and engines installed in these vehicles are subject to standards under 40 CFR part 1036. If you are not the engine manufacturer, you must notify the engine manufacturer that its engines are subject to 40 CFR part 1036 if you intend to use their engines in vehicles that are not subject to standards under this section. Vehicles produced by small businesses may be excluded from the standards of this section as described in paragraph (k)(5) of this section.

(a) *Fleet-average CO<sub>2</sub> emission standards.* Fleet-average CO<sub>2</sub> emission stand-

ards apply for the full useful life for each manufacturer as follows:

(1) Calculate a work factor, *WF*, for each vehicle subconfiguration (or group of subconfigurations as allowed under paragraph (a)(4) of this section), rounded to the nearest pound, using the following equation:

$$WF = 0.75 \times (GVWR - \text{Curb Weight} + xwd) + 0.25 \times (GCWR - GVWR)$$

Where:

*xwd* = 500 pounds if the vehicle has four-wheel drive or all-wheel drive; *xwd* = 0 pounds for all other vehicles.

(2) Using the appropriate work factor, calculate a target value for each vehicle subconfiguration (or group of subconfigurations as allowed under paragraph (a)(4) of this section) you produce using one of the following equations, or the phase-in provisions in paragraph (k)(4) of this section, rounding to the nearest whole g/mile:

(i) For model year 2027 and later vehicles with spark-ignition engines: *CO<sub>2</sub> Target* (g/mile) =  $0.0369 \times WF + 284$

(ii) For model year 2027 and later vehicles with compression-ignition engines or with no engines (such as electric vehicles and fuel cell vehicles): *CO<sub>2</sub> Target* (g/mile) =  $0.0348 \times WF + 268$

(3) Calculate a production-weighted average of the target values and round it to the nearest whole g/mile. This is your fleet-average standard. All vehicles subject to the standards of this section form a single averaging set. Use the following equation to calculate your fleet-average standard from the target value for each vehicle subconfiguration (*Target<sub>i</sub>*) and U.S.-directed production volume of each vehicle subconfiguration for the given model year (*Volume<sub>i</sub>*):

$$\text{Fleet-Average Standard} = \frac{\sum [\text{Target}_i \times \text{Volume}_i]}{\sum [\text{Volume}_i]}$$

(4) You may group subconfigurations within a configuration together for purposes of calculating your fleet-average standard as follows:

(i) You may group together subconfigurations that have the same equivalent test weight (ETW), GVWR, and GCWR. Calculate your work factor and target value assuming a curb

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(4) The Administrator will set forth in detail the bases for the determination required by this paragraph (h), including the Administrator's assessment of each of the factors listed in paragraph (h)(1) of this section.

[75 FR 25686, May 7, 2010, as amended at 76 FR 19874, Apr. 8, 2011; 76 FR 39521, July 6, 2011; 76 FR 57377, Sept. 15, 2011; 77 FR 63156, Oct. 15, 2012; 79 FR 23725, Apr. 28, 2014; 81 FR 73985, Oct. 25, 2016; 85 FR 25268, Apr. 30, 2020; 86 FR 34371, June 29, 2021; 86 FR 74522, Dec. 30, 2021]

**§ 86.1819-14 Greenhouse gas emission standards for heavy-duty vehicles.**

This section describes exhaust emission standards for CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O for heavy-duty vehicles. The standards of this section apply for model year 2014 and later vehicles that are chassis-certified with respect to criteria pollutants under this subpart S. Additional heavy-duty vehicles may be optionally subject to the standards of this section as allowed under paragraph (j) of this section. Any heavy-duty vehicles not subject to standards under this section are instead subject to greenhouse gas standards under 40 CFR part 1037, and engines installed in these vehicles are subject to standards under 40 CFR part 1036. If you are not the engine manufacturer, you must notify the engine manufacturer that its engines are subject to 40 CFR part 1036 if you intend to use their engines in vehicles that are not subject to standards under this section. Vehicles produced by small businesses may be excluded from the standards of this section as described in paragraph (k)(5) of this section.

(a) *Fleet-average CO<sub>2</sub> emission standards.* Fleet-average CO<sub>2</sub> emission stand-

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ards apply for the full useful life for each manufacturer as follows:

(1) Calculate a work factor, *WF*, for each vehicle subconfiguration (or group of subconfigurations as allowed under paragraph (a)(4) of this section), rounded to the nearest pound, using the following equation:

$$WF = 0.75 \times (GVWR - \text{Curb Weight} + xwd) + 0.25 \times (GCWR - GVWR)$$

Where:

*xwd* = 500 pounds if the vehicle has four-wheel drive or all-wheel drive; *xwd* = 0 pounds for all other vehicles.

(2) Using the appropriate work factor, calculate a target value for each vehicle subconfiguration (or group of subconfigurations as allowed under paragraph (a)(4) of this section) you produce using one of the following equations, or the phase-in provisions in paragraph (k)(4) of this section, rounding to the nearest whole g/mile:

(i) For model year 2027 and later vehicles with spark-ignition engines: *CO<sub>2</sub> Target* (g/mile) =  $0.0369 \times WF + 284$

(ii) For model year 2027 and later vehicles with compression-ignition engines or with no engines (such as electric vehicles and fuel cell vehicles): *CO<sub>2</sub> Target* (g/mile) =  $0.0348 \times WF + 268$

(3) Calculate a production-weighted average of the target values and round it to the nearest whole g/mile. This is your fleet-average standard. All vehicles subject to the standards of this section form a single averaging set. Use the following equation to calculate your fleet-average standard from the target value for each vehicle subconfiguration (*Target<sub>i</sub>*) and U.S.-directed production volume of each vehicle subconfiguration for the given model year (*Volume<sub>i</sub>*):

$$\text{Fleet-Average Standard} = \frac{\sum [\text{Target}_i \times \text{Volume}_i]}{\sum [\text{Volume}_i]}$$

(4) You may group subconfigurations within a configuration together for purposes of calculating your fleet-average standard as follows:

(i) You may group together subconfigurations that have the same equivalent test weight (ETW), GVWR, and GCWR. Calculate your work factor and target value assuming a curb

weight equal to two times ETW minus GVWR.

(ii) You may group together other subconfigurations if you use the lowest target value calculated for any of the subconfigurations.

(5) The standards specified in this section apply for testing at both low-altitude conditions and high-altitude conditions. However, manufacturers must submit an engineering evaluation indicating that common calibration approaches are utilized at high altitude instead of performing testing for certification, consistent with § 86.1829. Any deviation from low altitude emission control practices must be included in the auxiliary emission control device (AECD) descriptions submitted at certification. Any AECD specific to high altitude requires engineering emission data for EPA evaluation to quantify any emission impact and determine the validity of the AECD.

(b) *Production and in-use CO<sub>2</sub> standards.* Each vehicle you produce that is subject to the standards of this section has an “in-use” CO<sub>2</sub> standard that is calculated from your test result and that applies for selective enforcement audits and in-use testing. This in-use CO<sub>2</sub> standard for each vehicle is equal to the applicable deteriorated emission level multiplied by 1.10 and rounded to the nearest whole g/mile.

(c) *N<sub>2</sub>O and CH<sub>4</sub> standards.* Except as allowed under this paragraph (c), all vehicles subject to the standards of this section must comply with an N<sub>2</sub>O standard of 0.05 g/mile and a CH<sub>4</sub> standard of 0.05 g/mile when calculated according to the provisions of paragraph (d)(4) of this section. You may specify CH<sub>4</sub> and/or N<sub>2</sub>O alternative standards using CO<sub>2</sub> emission credits instead of these otherwise applicable emission standards for one or more test groups. To do this, calculate the CH<sub>4</sub> and/or N<sub>2</sub>O emission credits needed (negative credits) using the equation in this paragraph (c) based on the FEL(s) you specify for your vehicles during certification. You must adjust the calculated emissions by the global warming potential (GWP): GWP equals 34 for CH<sub>4</sub> from model year 2021 and later vehicles, 25 for CH<sub>4</sub> from earlier vehicles, and 298 for N<sub>2</sub>O. This means, for example, that you must use 298 Mg of posi-

tive CO<sub>2</sub> credits to offset 1 Mg of negative N<sub>2</sub>O credits. Note that § 86.1818–12(f) does not apply for vehicles subject to the standards of this section. Calculate credits using the following equation, rounded to the nearest whole number:

$$\text{CO}_2 \text{ Credits Needed (Mg)} = [(FEL - Std) \times (U.S.-directed \text{ production volume}) \times (Useful \text{ Life})] \times (GWP) \div 1,000,000$$

(d) *Compliance provisions.* The following compliance provisions apply instead of other provisions described in this subpart S:

(1) The CO<sub>2</sub> standards of this section apply with respect to CO<sub>2</sub> emissions, not with respect to carbon-related exhaust emissions (CREE).

(2) The following general credit provisions apply:

(i) Credits you generate under this section may be used only to offset credit deficits under this section. You may bank credits for use in a future model year in which your average CO<sub>2</sub> level exceeds the standard. You may trade credits to another manufacturer according to § 86.1865–12(k)(8). Before you bank or trade credits, you must apply any available credits to offset a deficit if the deadline to offset that credit deficit has not yet passed.

(ii) Vehicles subject to the standards of this section are included in a single greenhouse gas averaging set separate from any averaging set otherwise included in this subpart S.

(iii) Banked CO<sub>2</sub> credits keep their full value for five model years after the year in which they were generated. Unused credits may not be used for more than five model years after the model year in which the credits are generated.

(3) Special credit and incentive provisions related to air conditioning in §§ 86.1867 and 86.1868 do not apply for vehicles subject to the standards of this section.

(4) Measure emissions using the procedures of subpart B of this part and 40 CFR part 1066. Determine separate emission results for the Federal Test Procedure (FTP) described in 40 CFR 1066.801(c)(1) and the Highway Fuel Economy Test (HFET) described in 40 CFR 1066.801(c)(3). Calculate composite emission results from these two test cycles for demonstrating compliance



with the CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> standards based on a weighted average of the FTP (55%) and HFET (45%) emission results. Note that this differs from the way the criteria pollutant standards apply.

(5) Apply an additive deterioration factor of zero to measured CO<sub>2</sub> emissions unless good engineering judgment indicates that emissions are likely to deteriorate in use. Use good engineering judgment to develop separate deterioration factors for N<sub>2</sub>O and CH<sub>4</sub>.

(6) Credits are calculated using the useful life value (in miles) in place of “vehicle lifetime miles” as specified in §86.1865. Calculate a total credit or debit balance in a model year by adding credits and debits from §86.1865-12(k)(4), subtracting any CO<sub>2</sub>-equivalent debits for N<sub>2</sub>O or CH<sub>4</sub> calculated according to paragraph (c) of this section, and adding any of the following credits:

(i) Off-cycle technology credits according to paragraph (d)(13) of this section.

(ii) Early credits from vehicles certified under paragraph (k)(2) of this section.

(iii) Advanced-technology credits according to paragraph (k)(7) of this section.

(7) [Reserved]

(8) The provisions of §86.1818 do not apply.

(9) Calculate your fleet-average emission rate consistent with good engineering judgment and the provisions of §86.1865. The following additional provisions apply:

(i) Unless we approve a lower number, you must test at least ten subconfigurations. If you produce more than 100 subconfigurations in a given model year, you must test at least ten percent of your subconfigurations. For purposes of this paragraph (d)(9)(i), count carryover tests, but do not include analytically derived CO<sub>2</sub> emission rates, data substitutions, or other untested allowances. We may approve a lower number of tests for manufacturers that have limited product offerings, or low sales volumes. Note that good engineering judgment and other provisions of this part may require you to test more subconfigurations than these minimum values.

(ii) The provisions of paragraph (g) of this section specify how you may use analytically derived CO<sub>2</sub> emission rates.

(iii) At least 90 percent of final production volume at the configuration level must be represented by test data (real, data substituted, or analytical).

(iv) Perform fleet-average CO<sub>2</sub> calculations as described in §86.1865 and 40 CFR part 600, with the following exceptions:

(A) Use CO<sub>2</sub> emissions values for all test results, intermediate calculations, and fleet average calculations instead of the carbon-related exhaust emission (CREE) values specified in this subpart S and 40 CFR part 600.

(B) Perform intermediate CO<sub>2</sub> calculations for subconfigurations within each configuration using the subconfiguration and configuration definitions in paragraph (d)(12) of this section.

(C) Perform intermediate CO<sub>2</sub> calculations for configurations within each test group and transmission type (instead of configurations within each base level and base levels within each model type). Use the configuration definition in paragraph (d)(12)(i) of this section.

(D) Do not perform intermediate CO<sub>2</sub> calculations for each base level or for each model type. Base level and model type CO<sub>2</sub> calculations are not applicable to heavy-duty vehicles subject to standards in this section.

(E) Determine fleet average CO<sub>2</sub> emissions for heavy-duty vehicles subject to standards in this section as described in 40 CFR 600.510-12(j), except that the calculations must be performed on the basis of test group and transmission type (instead of the model-type basis specified in the light-duty vehicle regulations), and the calculations for dual-fuel, multi-fuel, and flexible-fuel vehicles must be consistent with the provisions of paragraph (d)(10)(i) of this section.

(10) For dual-fuel, multi-fuel, and flexible-fuel vehicles, perform exhaust testing on each fuel type (for example, gasoline and E85).

(i) For your fleet-average calculations in model year 2016 and later, use either the conventional-fueled CO<sub>2</sub> emission rate or a weighted average of

your emission results as specified in 40 CFR 600.510–12(k) for light-duty trucks. For your fleet-average calculations before model year 2016, apply an equal weighting of CO<sub>2</sub> emission results from alternative and conventional fuels.

(ii) If you certify to an alternate standard for N<sub>2</sub>O or CH<sub>4</sub> emissions, you may not exceed the alternate standard when tested on either fuel.

(11) Test your vehicles with an equivalent test weight based on its Adjusted Loaded Vehicle Weight (ALVW). Determine equivalent test weight from the ALVW as specified in 40 CFR 1066.805; round ALVW values above 14,000 pounds to the nearest 500 pound increment.

(12) The following definitions apply for the purposes of this section:

(i) *Configuration* means a subclassification within a test group based on engine code, transmission type and gear ratios, final drive ratio, and other parameters we designate. Engine code means the combination of both “engine code” and “basic engine” as defined for light-duty vehicles in 40 CFR 600.002.

(ii) *Subconfiguration* means a unique combination within a vehicle configuration (as defined in this paragraph (d)(12)) of equivalent test weight, road-load horsepower, and any other operational characteristics or parameters that we determine may significantly affect CO<sub>2</sub> emissions within a vehicle configuration. Note that for vehicles subject to standards of this section, equivalent test weight (ETW) is based on the ALVW of the vehicle as outlined in paragraph (d)(11) of this section.

(13) This paragraph (d)(13) applies for CO<sub>2</sub> reductions resulting from technologies that were not in common use before 2010 that are not reflected in the specified test procedures. While you are not required to prove that such technologies were not in common use with heavy-duty vehicles before model year 2010, we will not approve your request if we determine they do not qualify. These may be described as off-cycle or innovative technologies. We may allow you to generate emission credits consistent with the provisions of

§ 86.1869–12(c) and (d). The 5-cycle methodology is not presumed to be preferred over alternative methodologies described in § 86.1869–12(d).

(14) You must submit pre-model year reports before you submit your applications for certification for a given model year. Unless we specify otherwise, include the information specified for pre-model year reports in 49 CFR 535.8.

(15) You must submit a final report within 90 days after the end of the model year. Unless we specify otherwise, include applicable information identified in § 86.1865–12(l), 40 CFR 600.512, and 49 CFR 535.8(e). The final report must include at least the following information:

(i) Model year.

(ii) Applicable fleet-average CO<sub>2</sub> standard.

(iii) Calculated fleet-average CO<sub>2</sub> value and all the values required to calculate the CO<sub>2</sub> value.

(iv) Number of credits or debits incurred and all values required to calculate those values.

(v) Resulting balance of credits or debits.

(vi) N<sub>2</sub>O emissions.

(vii) CH<sub>4</sub> emissions.

(viii) Total and percent leakage rates under paragraph (h) of this section.

(16) You may apply the provisions for delegated assembly as described in 40 CFR 1037.621.

(17) You may calculate emission rates for weight increments less than the 500 pound increment specified for test weight. This does not change the applicable test weights.

(i) Use the ADC equation in paragraph (g) of this section to adjust your emission rates for vehicles in increments of 50, 100, or 250 pounds instead of the 500 test-weight increments. Adjust emissions to the midpoint of each increment. This is the equivalent emission weight. For example, vehicles with a test weight basis of 11,751 to 12,250 pounds (which have an equivalent test weight of 12,000 pounds) could be re-grouped into 100 pound increments as follows:

Test weight basis	Equivalent emission weight	Equivalent test weight
11,751–11,850 .....	11,800	12,000
11,851–11,950 .....	11,900	12,000
11,951–12,050 .....	12,000	12,000
12,051–12,150 .....	12,100	12,000
12,151–12,250 .....	12,200	12,000

(ii) You must use the same increment for all equivalent test weight classes across your whole product line in a given model year. You must also specify curb weight for calculating the work factor in a way that is consistent with your approach for determining test weight for calculating ADCs under this paragraph (d)(17).

(e) *Useful life.* The exhaust emission standards of this section apply for the full useful life, as described in § 86.1805.

(f) [Reserved]

(g) *Analytically derived CO<sub>2</sub> emission rates (ADCs).* This paragraph (g) describes an allowance to use estimated (*i.e.*, analytically derived) CO<sub>2</sub> emission rates based on baseline test data instead of measured emission rates for calculating fleet-average emissions. Note that these ADCs are similar to ADFEs used for light-duty vehicles. Note also that *F* terms used in this paragraph (g) represent coefficients from the following road load equation:

$$Force = F_0 + F_1 \cdot (velocity) + F_2 \cdot (velocity)^2$$

(1) Except as specified in paragraph (g)(2) of this section, use the following equation to calculate the ADC of a new vehicle from road load force coefficients (*F*<sub>0</sub>, *F*<sub>1</sub>, *F*<sub>2</sub>), axle ratio, and test weight:

$$ADC = CO_{2base} + 2.18 \cdot \Delta F_0 + 37.4 \cdot \Delta F_1 + 2257 \cdot \Delta F_2 + 189 \cdot \Delta AR + 0.0222 \cdot \Delta ETW$$

Where:

*ADC* = Analytically derived combined city/highway CO<sub>2</sub> emission rate (g/mile) for a new vehicle.

*CO<sub>2base</sub>* = Combined city/highway CO<sub>2</sub> emission rate (g/mile) of a baseline vehicle.

$\Delta F_0$  = *F*<sub>0</sub> of the new vehicle – *F*<sub>0</sub> of the baseline vehicle.

$\Delta F_1$  = *F*<sub>1</sub> of the new vehicle – *F*<sub>1</sub> of the baseline vehicle.

$\Delta F_2$  = *F*<sub>2</sub> of the new vehicle – *F*<sub>2</sub> of the baseline vehicle.

$\Delta AR$  = Axle ratio of the new vehicle – axle ratio of the baseline vehicle.

$\Delta ETW$  = *ETW* of the new vehicle – *ETW* of the baseline vehicle.

(2) The purpose of this section is to accurately estimate CO<sub>2</sub> emission rates.

(i) You must apply the provisions of this section consistent with good engineering judgment. For example, do not use the equation in paragraph (g)(1) of this section where good engineering judgment indicates that it will not accurately estimate emissions. You may ask us to approve alternate equations that allow you to estimate emissions more accurately.

(ii) The analytically derived CO<sub>2</sub> equation in paragraph (g)(1) of this section may be periodically updated through publication of an EPA guidance document to more accurately characterize CO<sub>2</sub> emission levels for example, changes may be appropriate based on new test data, future technology changes, or to changes in future CO<sub>2</sub> emission levels. Any EPA guidance document will determine the model year that the updated equation takes effect. We will issue guidance no later than eight months before the effective model year. For example, model year 2014 may start January 2, 2013, so guidance for model year 2014 would be issued by May 1, 2012.

(3) You may select baseline test data without our advance approval if they meet all the following criteria:

(i) Vehicles considered for the baseline test must comply with all applicable emission standards in the model year associated with the ADC.

(ii) You must include in the pool of tests considered for baseline selection all official tests of the same or equivalent basic engine, transmission class, engine code, transmission code, engine horsepower, dynamometer drive wheels, and compression ratio as the ADC subconfiguration. Do not include tests in which emissions exceed any applicable standard.

(iii) Where necessary to minimize the CO<sub>2</sub> adjustment, you may supplement the pool with tests associated with worst-case engine or transmission codes and carryover or carry-across test groups. If you do, all the data that qualify for inclusion using the elected worst-case substitution (or carryover or carry-across) must be included in the pool as supplemental data (*i.e.*, individual test vehicles may not be selected for inclusion). You must also include the supplemental data in all subsequent pools, where applicable.

(iv) Tests previously used during the subject model year as baseline tests in ten other ADC subconfigurations must be eliminated from the pool.

(v) Select the tested subconfiguration with the smallest absolute difference between the ADC and the test CO<sub>2</sub> emission rate for combined emissions. Use this as the baseline test for the target ADC subconfiguration.

(4) You may ask us to allow you to use baseline test data not fully meeting the provisions of paragraph (g)(3) of this section.

(5) Calculate the ADC rounded to the nearest whole g/mile. Except with our advance approval, the downward adjustment of ADC from the baseline is limited to ADC values 20 percent below the baseline emission rate. The upward adjustment is not limited.

(6) You may not submit an ADC if an actual test has been run on the target subconfiguration during the certification process or on a development vehicle that is eligible to be declared as an emission-data vehicle.

(7) No more than 40 percent of the subconfigurations tested in your final CO<sub>2</sub> submission may be represented by ADCs.

(8) Keep the following records for at least five years, and show them to us if we ask to see them:

(i) The pool of tests.

(ii) The vehicle description and tests chosen as the baseline and the basis for the selection.

(iii) The target ADC subconfiguration.

(iv) The calculated emission rates.

(9) We may perform or order a confirmatory test of any subconfiguration covered by an ADC.

(10) Where we determine that you did not fully comply with the provisions of this paragraph (g), we may require that you comply based on actual test data and that you recalculate your fleet-average emission rate.

(h) *Air conditioning leakage.* Loss of refrigerant from your air conditioning systems may not exceed a total leakage rate of 11.0 grams per year or a percent leakage rate of 1.50 percent per year, whichever is greater. This applies for all refrigerants. Calculate the total leakage rate in g/year as specified in § 86.1867-12(a). Calculate the percent leakage rate as: [total leakage rate (g/yr)] ÷ [total refrigerant capacity (g)] × 100. Round your percent leakage rate to the nearest one-hundredth of a percent. For purpose of this requirement, “refrigerant capacity” is the total mass of refrigerant recommended by the vehicle manufacturer as representing a full charge. Where full charge is specified as a pressure, use good engineering judgment to convert the pressure and system volume to a mass.

(i) [Reserved]

(j) *Optional GHG certification under this subpart.* You may certify certain complete or cab-complete vehicles to the GHG standards of this section. All vehicles optionally certified under this paragraph (j) are deemed to be subject to the GHG standards of this section. Note that for vehicles above 14,000 pounds GVWR and at or below 26,000 pounds GVWR, GHG certification under this paragraph (j) does not affect how you may or may not certify with respect to criteria pollutants.

(1) For GHG compliance, you may certify any complete or cab-complete spark-ignition vehicles above 14,000 pounds GVWR and at or below 26,000 pounds GVWR to the GHG standards of this section even though this section otherwise specifies that you may certify vehicles to the GHG standards of this section only if they are chassis-certified for criteria pollutants.

(2) You may apply the provisions of this section to cab-complete vehicles based on a complete sister vehicle. In unusual circumstances, you may ask us to apply these provisions to Class 2b or Class 3 incomplete vehicles that do



not meet the definition of cab-complete.

(i) Except as specified in paragraph (j)(3) of this section, for purposes of this section, a complete sister vehicle is a complete vehicle of the same vehicle configuration as the cab-complete vehicle. You may not apply the provisions of this paragraph (j) to any vehicle configuration that has a four-wheel rear axle if the complete sister vehicle has a two-wheel rear axle.

(ii) Calculate the target value for fleet-average CO<sub>2</sub> emissions under paragraph (a) or (k)(4) of this section based on the work factor value that applies for the complete sister vehicle.

(iii) Test these cab-complete vehicles using the same equivalent test weight and other dynamometer settings that apply for the complete vehicle from which you used the work factor value (the complete sister vehicle). For GHG certification, you may submit the test data from that complete sister vehicle instead of performing the test on the cab-complete vehicle.

(iv) You are not required to produce the complete sister vehicle for sale to use the provisions of this paragraph (j)(2). This means the complete sister vehicle may be a carryover vehicle from a prior model year or a vehicle created solely for the purpose of testing.

(3) For GHG purposes, if a cab-complete vehicle is not of the same vehicle configuration as a complete sister vehicle due only to certain factors unrelated to coastdown performance, you may use the road-load coefficients from the complete sister vehicle for certification testing of the cab-complete vehicle, but you may not use emission data from the complete sister vehicle for certifying the cab-complete vehicle.

(k) *Interim provisions.* The following provisions apply instead of other provisions in this subpart:

(1) *Incentives for early introduction.* Manufacturers may voluntarily certify in model year 2013 (or earlier model years for electric vehicles) to the greenhouse gas standards that apply

starting in model year 2014 as specified in 40 CFR 1037.150(a).

(2) *Early credits.* To generate early credits under this paragraph (k)(2) for any vehicles other than electric vehicles, you must certify your entire U.S.-directed fleet to these standards. If you calculate a separate fleet average for advanced-technology vehicles under paragraph (k)(7) of this section, you must certify your entire U.S.-directed production volume of both advanced and conventional vehicles within the fleet. If some test groups are certified after the start of the model year, you may generate credits only for production that occurs after all test groups are certified. For example, if you produce three test groups in an averaging set and you receive your certificates for those test groups on January 4, 2013, March 15, 2013, and April 24, 2013, you may not generate credits for model year 2013 for vehicles from any of the test groups produced before April 24, 2013. Calculate credits relative to the standard that would apply in model year 2014 using the applicable equations in this subpart and your model year 2013 U.S.-directed production volumes. These credits may be used to show compliance with the standards of this subpart for 2014 and later model years. We recommend that you notify us of your intent to use this provision before submitting your applications.

(3) *Compliance date.* Compliance with the standards of this section was optional before January 1, 2014 as specified in 40 CFR 1037.150(g).

(4) *Phase-in provisions.* Each manufacturer must choose one of the options specified in paragraphs (k)(4)(i) and (ii) of this section for phasing in the Phase 1 standards. Manufacturers must follow the schedule described in paragraph (k)(4)(iii) of this section for phasing in the Phase 2 standards.

(i) *Phase 1—Option 1.* You may implement the Phase 1 standards by applying CO<sub>2</sub> target values as specified in the following table for model year 2014 through 2020 vehicles:

TABLE 1 OF § 86.1819–14

Model year and engine cycle	Alternate CO <sub>2</sub> target (g/mile)
2014 Spark-Ignition .....	$0.0482 \times (WF) + 371$
2015 Spark-Ignition .....	$0.0479 \times (WF) + 369$
2016 Spark-Ignition .....	$0.0469 \times (WF) + 362$
2017 Spark-Ignition .....	$0.0460 \times (WF) + 354$
2018–2020 Spark-Ignition .....	$0.0440 \times (WF) + 339$
2014 Compression-Ignition .....	$0.0478 \times (WF) + 368$
2015 Compression-Ignition .....	$0.0474 \times (WF) + 366$
2016 Compression-Ignition .....	$0.0460 \times (WF) + 354$
2017 Compression-Ignition .....	$0.0445 \times (WF) + 343$
2018–2020 Compression-Ignition .....	$0.0416 \times (WF) + 320$

(ii) *Phase 1—Option 2.* You may implement the Phase 1 standards by applying CO<sub>2</sub> target values specified in the following table for model year 2014 through 2020 vehicles:

TABLE 2 OF § 86.1819–14

Model year and engine cycle	Alternate CO <sub>2</sub> target (g/mile)
2014 Spark-Ignition .....	$0.0482 \times (WF) + 371$
2015 Spark-Ignition .....	$0.0479 \times (WF) + 369$
2016–2018 Spark-Ignition .....	$0.0456 \times (WF) + 352$
2019–2020 Spark-Ignition .....	$0.0440 \times (WF) + 339$
2014 Compression-Ignition .....	$0.0478 \times (WF) + 368$
2015 Compression-Ignition .....	$0.0474 \times (WF) + 366$
2016–2018 Compression-Ignition .....	$0.0440 \times (WF) + 339$
2019–2020 Compression-Ignition .....	$0.0416 \times (WF) + 320$

(iii) *Phase 2.* Apply Phase 2 CO<sub>2</sub> target values as specified in the following table for model year 2021 through 2026 vehicles:

TABLE 3 OF § 86.1819–14

Model year and engine cycle	Alternate CO <sub>2</sub> target (g/mile)
2021 Spark-Ignition .....	$0.0429 \times (WF) + 331$
2022 Spark-Ignition .....	$0.0418 \times (WF) + 322$
2023 Spark-Ignition .....	$0.0408 \times (WF) + 314$
2024 Spark-Ignition .....	$0.0398 \times (WF) + 306$
2025 Spark-Ignition .....	$0.0388 \times (WF) + 299$
2026 Spark-Ignition .....	$0.0378 \times (WF) + 291$
2021 Compression-Ignition .....	$0.0406 \times (WF) + 312$
2022 Compression-Ignition .....	$0.0395 \times (WF) + 304$
2023 Compression-Ignition .....	$0.0386 \times (WF) + 297$
2024 Compression-Ignition .....	$0.0376 \times (WF) + 289$
2025 Compression-Ignition .....	$0.0367 \times (WF) + 282$
2026 Compression-Ignition .....	$0.0357 \times (WF) + 275$

(5) *Provisions for small manufacturers.* Standards apply on a delayed schedule for manufacturers meeting the small business criteria specified in 13 CFR 121.201 (NAICS code 336111); the employee and revenue limits apply to the total number employees and total revenue together for affiliated companies. Qualifying small manufacturers are not subject to the greenhouse gas

standards of this section for vehicles with a date of manufacture before January 1, 2022, as specified in 40 CFR 1037.150(c). In addition, small manufacturers producing vehicles that run on any fuel other than gasoline, E85, or diesel fuel may delay complying with every later standard under this part by one model year.

(6) *Alternate N<sub>2</sub>O standards.* Manufacturers may show compliance with the N<sub>2</sub>O standards using an engineering analysis. This allowance also applies for model year 2015 and later test groups carried over from model 2014 consistent with the provisions of § 86.1839. You may not certify to an N<sub>2</sub>O FEL different than the standard without measuring N<sub>2</sub>O emissions.

(7) *Advanced-technology credits.* Provisions for advanced-technology credits apply as described in 40 CFR 1037.615. If you generate credits from Phase 1 vehicles certified with advanced technology, you may multiply these credits by 1.50. If you generate credits from Phase 2 vehicles certified with advanced technology, you may multiply these credits by 3.5 for plug-in hybrid electric vehicles, 4.5 for electric vehicles, and 5.5 for fuel cell vehicles. Advanced-technology credits from Phase 1 vehicles may be used to show compliance with any standards of this part or 40 CFR part 1036 or part 1037, subject to the restrictions in 40 CFR 1037.740. Similarly, you may use up to 60,000 Mg per year of advanced-technology credits generated under 40 CFR 1036.615 or 1037.615 (from Phase 1 vehicles) to demonstrate compliance with the CO<sub>2</sub> standards in this section. Include vehicles generating credits in separate fleet-average calculations (and exclude them from your conventional fleet-average calculation). You must first apply these advanced-technology vehicle credits to any deficits for other vehicles in the averaging set before applying them to other averaging sets.

(8) *Loose engine sales.* This paragraph (k)(8) applies for model year 2023 and earlier spark-ignition engines with identical hardware compared with engines used in vehicles certified to the standards of this section, where you sell such engines as loose engines or as engines installed in incomplete vehicles that are not cab-complete vehicles. You may include such engines in a test group certified to the standards of this section, subject to the following provisions:

(i) Engines certified under this paragraph (k)(8) are deemed to be certified to the standards of 40 CFR 1036.108 as specified in 40 CFR 1036.150(j).

(ii) For 2020 and earlier model years, the maximum allowable U.S.-directed production volume of engines you sell under this paragraph (k)(8) in any given model year is ten percent of the total U.S.-directed production volume of engines of that design that you produce for heavy-duty applications for that model year, including engines you produce for complete vehicles, cab-complete vehicles, and other incomplete vehicles. The total number of engines you may certify under this paragraph (k)(8), of all engine designs, may not exceed 15,000 in any model year. Engines produced in excess of either of these limits are not covered by your certificate. For example, if you produce 80,000 complete model year 2017 Class 2b pickup trucks with a certain engine and 10,000 incomplete model year 2017 Class 3 vehicles with that same engine, and you do not apply the provisions of this paragraph (k)(8) to any other engine designs, you may produce up to 10,000 engines of that design for sale as loose engines under this paragraph (k)(8). If you produced 11,000 engines of that design for sale as loose engines, the last 1,000 of them that you produced in that model year 2017 would be considered uncertified.

(iii) For model years 2021 through 2023, the U.S.-directed production volume of engines you sell under this paragraph (k)(8) in any given model year may not exceed 10,000 units.

(iv) This paragraph (k)(8) does not apply for engines certified to the standards of 40 CFR 1036.108.

(v) Label the engines as specified in 40 CFR 1036.135 including the following compliance statement: "THIS ENGINE WAS CERTIFIED TO THE ALTERNATE GREENHOUSE GAS EMISSION STANDARDS OF 40 CFR 1036.150(j)." List the test group name instead of an engine family name.

(vi) Vehicles using engines certified under this paragraph (k)(8) are subject to the emission standards of 40 CFR 1037.105.

(vii) For certification purposes, your engines are deemed to have a CO<sub>2</sub> target value and test result equal to the CO<sub>2</sub> target value and test result for the complete vehicle in the applicable test group with the highest equivalent test

weight, except as specified in paragraph (k)(8)(vii)(B) of this section. Use these values to calculate your target value, fleet-average emission rate, and in-use emission standard. Where there are multiple complete vehicles with the same highest equivalent test weight, select the CO<sub>2</sub> target value and test result as follows:

(A) If one or more of the CO<sub>2</sub> test results exceed the applicable target value, use the CO<sub>2</sub> target value and test result of the vehicle that exceeds its target value by the greatest amount.

(B) If none of the CO<sub>2</sub> test results exceed the applicable target value, select the highest target value and set the test result equal to it. This means that you may not generate emission credits from vehicles certified under this paragraph (k)(8).

(viii) Production and in-use CO<sub>2</sub> standards apply as described in paragraph (b) of this section.

(ix) N<sub>2</sub>O and CH<sub>4</sub> standards apply as described in paragraph (c) of this section.

(x) State in your applications for certification that your test group and engine family will include engines certified under this paragraph (k)(8). This applies for your greenhouse gas vehicle test group and your criteria pollutant engine family. List in each application the name of the corresponding test group/engine family.

(9) *Credit adjustment for useful life.* For credits that you calculate based on a useful life of 120,000 miles, multiply any banked credits that you carry forward for use in model year 2021 and later by 1.25.

(10) *CO<sub>2</sub> rounding.* For model year 2014 and earlier vehicles, you may round measured and calculated CO<sub>2</sub> emission levels to the nearest 0.1 g/mile, instead of the nearest whole g/mile as specified in paragraphs (a), (b), and (g) of this section.

[81 FR 73895, Oct. 25, 2016, as amended at 88 FR 4479, Jan. 24, 2023]

#### § 86.1820-01 Durability group determination.

This section applies to the grouping of vehicles into durability groups. Manufacturers shall divide their product line into durability groups based on the following criteria:

(a) The vehicles covered by a certification application shall be divided into groups of vehicles which are expected to have similar emission deterioration and emission component durability characteristics throughout their useful life. Manufacturers shall use good engineering judgment in dividing their vehicles into durability groups. Such groups of vehicles are defined as durability groups.

(b) To be included in the same durability group, vehicles must be identical in all the respects listed in paragraphs (b) (1) through (7) of this section:

(1) Combustion cycle (e.g., two stroke, four stroke, Otto cycle, diesel cycle).

(2) Engine type (e.g., piston, rotary, turbine, air cooled versus water cooled).

(3) Fuel used (e.g., gasoline, diesel, methanol, ethanol, CNG, LPG, flexible fuels).

(4) Basic fuel metering system (e.g., throttle body injection, port injection (including central port injection), carburetor, CNG mixer unit).

(5) Catalyst construction (for example, beads or monolith).

(6) Precious metal composition of the catalyst by the type of principal active material(s) used (e.g., platinum based oxidation catalyst, palladium based oxidation catalyst, platinum and rhodium three-way catalyst, palladium and rhodium three way catalyst, platinum and palladium and rhodium three way catalyst).

(7) The manufacturer must choose one of the following two criteria:

(i) Grouping statistic:

(A) Vehicles are grouped based upon the value of the grouping statistic determined using the following equation:  $GS = [(Cat\ Vol)/(Disp)] \times Loading\ Rate$

Where:

GS = Grouping Statistic used to evaluate the range of precious metal loading rates and relative sizing of the catalysts compared to the engine displacement that are allowable within a durability group. The grouping statistic shall be rounded to a tenth of a gram/liter.

Cat Vol = Total volume of the catalyst(s) in liters.

Disp = Displacement of the engine in liters.  
Loading rate = The mass of total precious metal(s) in the catalyst (or the total mass of all precious metal(s) of all the



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statement in the application for certification that vehicles comply with the refueling emission standard instead of submitting test data. Such a statement must be based on previous emission tests, development tests, or other appropriate information, and good engineering judgment.

(3) *Cold temperature CO and cold temperature NMHC Testing.* The manufacturer must test one EDV in each durability group for cold temperature CO and cold temperature NMHC exhaust emission compliance in accordance with the test procedures in subpart C of this part or with alternative procedures approved in advance by the Administrator. The selection of which EDV and test group within the durability group will be tested for cold temperature CO and cold temperature NMHC compliance will be determined under the provisions of § 86.1828-10(c) and (g).

(4) *Electric vehicles and fuel cell vehicles.* For electric vehicles and fuel cell vehicles, manufacturers may provide a statement in the application for certification that vehicles comply with all the requirements of this subpart instead of submitting test data. Such a statement must be based on previous emission tests, development tests, or other appropriate information, and good engineering judgment.

(5) *Idle CO testing.* To determine idle CO emission compliance for light-duty trucks and complete heavy-duty vehicles, the manufacturer shall follow one of the following two procedures:

(i) For test groups containing light-duty trucks and complete heavy-duty vehicles, each EDV shall be tested in accordance with the idle CO testing procedures of subpart B of this part; or

(ii) In lieu of testing light trucks and complete heavy-duty vehicles for idle CO emissions, a manufacturer may provide a statement in its application for certification that, based on the manufacturer's engineering evaluation of such idle CO testing as the manufacturer deems appropriate, all light-duty trucks and complete heavy-duty vehicles comply with the idle CO emission standards.

(c) *Running change testing.* Running change testing shall be conducted as

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required under the provisions of § 86.1842-01.

(d) [Reserved]

[64 FR 23925, May 4, 1999, as amended at 65 FR 6864, Feb. 10, 2000; 65 FR 59975, Oct. 6, 2000; 66 FR 5193, Jan. 18, 2001; 66 FR 19310, Apr. 13, 2001; 70 FR 72929, Dec. 8, 2005; 71 FR 2836, Jan. 17, 2006; 72 FR 8566, Feb. 26, 2007; 75 FR 25689, May 7, 2010; 76 FR 19874, Apr. 8, 2011; 77 FR 63161, Oct. 15, 2012; 79 FR 23726, Apr. 28, 2014]

## § 86.1829-15 Durability and emission testing requirements; waivers.

This section describes general testing requirements for certifying vehicles under this subpart, and includes several provisions allowing for statements of compliance instead of testing in certain circumstances. Where a manufacturer provides a statement instead of test data under this section, it must be based on previous emission tests, development tests, or other appropriate information, and on good engineering judgment.

(a) One durability demonstration is required for each durability group. The configuration of the DDV is determined according to § 86.1822. The DDV shall be tested and accumulate service mileage according to the provisions of §§ 86.1823, 86.1824, 86.1825, and 86.1831. Small-volume manufacturers and small-volume test groups may optionally use the alternative durability provisions of § 86.1838.

(b) The manufacturer must test EDVs as follows to demonstrate compliance with emission standards:

(1) Test one EDV in each durability group using the test procedures in 40 CFR part 1066 to demonstrate compliance with cold temperature CO and NMHC exhaust emission standards.

(2) Test one EDV in each test group using the FTP, SFTP, and HFET test procedures in 40 CFR part 1066 to demonstrate compliance with other exhaust emission standards.

(3) Test one EDV in each evaporative/refueling family and evaporative/refueling emission control system combination using the test procedures in subpart B of this part to demonstrate compliance with evaporative and refueling emission standards.

(c) The manufacturer must demonstrate compliance with emission standards at low-altitude conditions as

described in paragraph (b) of this section. For standards that apply at high-altitude conditions, the manufacturer may either perform the same tests or provide a statement in the application for certification that, based on an engineering evaluation of appropriate testing to measure or simulate high-altitude emissions, all vehicles comply with applicable emission standards at high altitude.

(d) Manufacturers may omit exhaust testing for certification in certain circumstances as follows:

(1) For vehicles subject to the Tier 3 PM standards in § 86.1811, a manufacturer may provide a statement in the application for certification that vehicles comply with applicable PM standards instead of submitting PM test data for a certain number of vehicles. However, each manufacturer must test vehicles from a minimum number of durability groups as follows:

(i) Manufacturers with a single durability group subject to the Tier 3 PM standards in § 86.1811 must submit PM test data for that group.

(ii) Manufacturers with two to eight durability groups subject to the Tier 3 PM standards in § 86.1811 must submit PM test data for at least two durability groups each model year. EPA will work with the manufacturer to select durability groups for testing, with the general expectation that testing will rotate to cover a manufacturer's whole product line over time. If a durability group has been certified in an earlier model year based on submitted PM data, and that durability group is eligible for certification using carryover test data, that carryover data may count toward meeting the requirements of this paragraph (d)(1), subject to the selection of durability groups.

(iii) Manufacturers with nine or more durability groups subject to the Tier 3 PM standards in § 86.1811 must submit PM test data for at least 25 percent of those durability groups each model year. We will work with the manufacturer to select durability groups for testing as described in paragraph (d)(1)(ii) of this section.

(2) Small-volume manufacturers may provide a statement in the application for certification that vehicles comply

with the applicable PM standard instead of submitting test data.

(3) Manufacturers may omit PM measurements for fuel economy and GHG testing conducted in addition to the testing needed to demonstrate compliance with the PM emission standards.

(4) Manufacturers may provide a statement in the application for certification that vehicles comply with the applicable formaldehyde standard instead of submitting test data.

(5) When conducting Selective Enforcement Audit testing, a manufacturer may petition the Administrator to waive the requirement to measure PM emissions and formaldehyde emissions.

(6) For model years 2012 through 2016, a manufacturer may provide a statement in its application for certification that vehicles comply with the applicable standards instead of measuring N<sub>2</sub>O emissions. Such a statement may also be used for model year 2017 and 2018 vehicles only if the application for certification for those vehicles is based upon data carried over from a prior model year, as allowed under this subpart. No model year 2019 and later vehicles may be waived from testing for N<sub>2</sub>O emissions. Vehicles certified to N<sub>2</sub>O standards using a compliance statement instead of submitting test data are not required to collect and submit N<sub>2</sub>O emission data under the in-use testing requirements of § 86.1845.

(e) Manufacturers may omit evaporative or refueling testing for certification in certain circumstances as follows:

(1) For diesel-fueled vehicles, a manufacturer may provide a statement in the application for certification that vehicles comply with the refueling emission standard instead of submitting test data.

(2) For vehicles fueled by natural gas, a manufacturer may provide a statement in the application for certification that vehicles comply with evaporative emission standards instead of submitting test data. Compressed natural gas vehicles meeting the requirements for fueling connection devices in § 86.1813–17(f)(1) are deemed to comply with evaporative and refueling emission standards.

(3) For vehicles fueled by liquefied petroleum gas, a manufacturer may provide a statement in the application for certification that vehicles comply with evaporative and refueling emission standards instead of submitting test data, except that refueling tests are required for systems that allow venting during the refueling operation.

(4) Manufacturers may provide a statement in the application for certification that vehicles comply with the leak standard in § 86.1813 instead of submitting test data.

(5) For vehicles certified to the refueling emission standards in §§ 86.1811 or 86.1813, a manufacturer may provide a statement in the application for certification that vehicles comply with the fuel dispensing spitback standard instead of submitting test data.

(6) In lieu of testing vehicles for the supplemental two-diurnal test sequence, a manufacturer may optionally provide a statement of compliance in its application for certification that, based on the manufacturer's good engineering judgment, all vehicles in the evaporative/refueling emission family comply with the evaporative emission standard for the supplemental two-diurnal test sequence.

(i) The option to provide a statement of compliance in lieu of 2-diurnal evaporative certification test data is limited to vehicles with conventional evaporative emission control systems (as determined by the Administrator). EPA may perform confirmatory 2-diurnal evaporative emission testing on test vehicles certified using this option. If data shows noncompliance, it will be addressed through § 86.1851. Also, if data shows noncompliance, EPA will generally disallow subsequent waivers for the applicable evaporative family.

(ii) Manufacturers shall supply information if requested by EPA in support of the statement of compliance described in this paragraph (e)(6). This information shall include evaporative calibration information for the emission-data vehicle and for other vehicles in the evaporative/refueling family, including, but not limited to, canister type, canister volume, canister working capacity, canister shape and internal configuration, fuel tank volume,

fuel tank geometry, the type of fuel delivery system (return, returnless, variable flow fuel pump, etc.), a description of the input parameters and software strategy used to control the evaporative canister purge, the nominal purge flow volume (in bed volumes) when vehicles are driven over the 2-diurnal (FTP) driving cycle, the nominal purge flow volume (in bed volumes) when vehicles are driven over the 3-diurnal (FTP + running loss) driving cycle, and other supporting information as necessary to demonstrate that the purge flow rate calibration on the 2-diurnal test sequence is adequate to comply with the evaporative emission standard for the supplemental two-diurnal test sequence.

(7) Where a California evaporative emission standard is at least as stringent as a comparable federal evaporative emission standard for a vehicle, we may accept test data demonstrating compliance with the California standard as demonstrating compliance with the comparable standard under this subpart. We may require you to provide test data clearly demonstrating that a vehicle tested using the California-specified test procedures will meet the comparable standard under this subpart when tested using the test procedures specified in this part.

(8) Through model year 2019, we may accept test data demonstrating compliance with the California refueling emission standard as demonstrating compliance with the analogous refueling emission standard under this subpart if all the following conditions apply:

(i) You certified the vehicles in model year 2016 to California's refueling emission standards.

(ii) You are certifying the vehicles to refueling standards for the new model year based on carryover data instead of performing new testing.

(iii) You are also certifying the vehicles for evaporative emissions based on California test procedures under the provisions of paragraph (e)(6) of this section.

(9) For complete vehicles above 10,000 pounds GVWR with fuel tanks exceeding 35 gallons nominal fuel tank capacity, and for any incomplete vehicles

above 10,000 pounds GVWR, a manufacturer may provide a statement in the application for certification that vehicles comply with refueling emission standards instead of submitting test data, consistent with 40 CFR 1037.103(c).

(f) For electric vehicles and fuel cell vehicles, manufacturers may provide a statement in the application for certification that vehicles comply with all the requirements of this subpart instead of submitting test data. Tailpipe emissions of regulated pollutants from vehicles powered solely by electricity are deemed to be zero.

[79 FR 23727, Apr. 28, 2014, as amended at 80 FR 9108, Feb. 19, 2015]

**§ 86.1830-01 Acceptance of vehicles for emission testing.**

(a) *General test vehicle requirements.* (1) All test vehicles shall be tested in the proper configurations as specified in § 86.1822-01, § 86.1828-01, or § 86.1842-01, as applicable for the type of test conducted.

(2) Components affecting emissions which are used to build test vehicles shall either be randomly selected production parts or parts verified to be in the middle 50 percent of the tolerance range. The manufacturer will determine which components affect emissions using good engineering judgment.

(3) Test vehicles must have air conditioning installed and operational if that configuration is available with air conditioning. Optional equipment must be installed or represented on test vehicles according to the provisions of § 86.1832-01.

(4) Test vehicles must receive proper scheduled maintenance as established by the manufacturer according to the provisions of § 86.1834-01(b) or (c). Un-scheduled maintenance must be approved under the provisions of § 86.1834-01(d).

(5) Vehicle mileage shall be accumulated in accordance with § 86.1831-01.

(6) The road load forces and equivalent test weight used during testing will be determined according to the provisions of § 86.129-00.

(7) Test vehicles shall have the appropriate emission testing hardware installed (e.g., exhaust pipe testing flange, fuel tank drain, access ports to

evaporative canisters, and fuel tank heat blanket) and shall have tires with appropriate tire wear.

(b) *Special provisions for durability data vehicles.* (1) For DDV's, the mileage at all test points shall be within 250 miles of the scheduled mileage point as required under § 86.1823-08(c)(3). Manufacturers may exceed the 250 mile upper limit if there are logistical reasons for the deviation and the manufacturer determines that the deviation will not affect the representativeness of the durability demonstration.

(2) For DDV's aged using the standard or a customized/alternative whole-vehicle cycle, all emission-related hardware and software must be installed and operational during all mileage accumulation after the 5000-mile test point.

(3) DDV's may be reconfigured before the 5000-mile test point providing that the representativeness of the emission results will not be affected. Manufacturers shall use good engineering judgment in making such determinations.

(c) *Special provisions for emission data vehicles.* (1) All EDV's shall have at least the minimum number of miles accumulated to achieve stabilized emission results according to the provisions of § 86.1831-01(c).

(2) Within a durability group, the manufacturer may alter any emission data vehicle (or other vehicles such as current or previous model year emission data vehicles, running change vehicles, fuel economy data vehicles, and development vehicles) in lieu of building a new test vehicle providing that the modification will not impact the representativeness of the vehicle's test results. Manufacturers shall use good engineering judgment in making such determinations. Development vehicles which were used to develop the calibration selected for emission data testing may not be used as the EDV for that configuration. Vehicles from outside the durability group may be altered with advance approval of the Administrator.

(3) Components used to reconfigure EDV's under the provisions of paragraph (c)(2) of this section must be appropriately aged if necessary to



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change all affected vehicles will still meet the applicable emission standards.

(i) Such notification shall include a full description of the addition or change and any supporting documentation the manufacturer may desire to include to support the manufacturer's determination in accordance with § 86.1844-01.

(ii) The manufacturer's determination that the addition or change does not cause noncompliance shall be based on an engineering evaluation of the addition or change and/or testing.

(2) The Administrator may require that additional emission testing be performed to support the manufacturer's determination submitted in paragraph (b)(1) of this section. If additional testing is required the Administrator shall proceed in accordance with paragraph (a)(3) of this section. Additional test data, if requested, must be provided within 30 days of the request or the manufacturer must rescind the addition or change immediately. The Administrator may grant additional time to complete testing. If based on this additional testing or any other information, the Administrator determines that the vehicles affected by the addition or change do not meet the applicable standards the Administrator will notify the manufacturer to rescind the addition or change immediately upon receipt of the notification.

(c) Election to produce vehicles under this section will be deemed to be a consent to recall all vehicles which the Administrator determines under paragraph (a) or (b) of this section do not meet applicable standards, and to cause such nonconformity to be remedied at no expense to the owner.

**§ 86.1843-01 General information requirements.**

(a) A manufacturer must submit a separate Application for Certification (Application) for each durability group in a format approved by the Administrator and in multiple copies as designated by the Administrator. Any information within the Application which is unique to a specific test group must be submitted for each test group.

(b) Any manufacturer that fails to comply with any information require-

ments of §§ 86.1843-01 and 86.1844-01 may be subject to the following provisions:

(1) The Application (Part 1 and Part 2) and any additional information as designated by the Administrator shall be submitted for all durability groups prior to certification for subsequent model years, until otherwise notified by the Administrator. The Application shall be updated concurrently with every running change.

(2) Provisions of § 86.1850-01 may be imposed.

(3) Civil penalties and remedial action as applicable under the Clean Air Act may be imposed.

(c) *Part 1 of the Application.* Part 1, which shall include the items listed in § 86.1844-01(d), must be submitted to the Administrator before a certificate of conformity will be issued.

(d) *Part 2 of the Application.* Part 2, which shall include the items listed in § 86.1844-01(e), must be submitted to the Administrator by January 1st of the applicable model year. If a test group is certified less than 60 days prior to January 1st of the applicable model year, Part 2 must be submitted to the Administrator within 90 days of the effective date on the applicable certificate of conformity.

(e) *Running change submissions.* Each running change notification, as required under § 86.1842-01, must include the information listed in § 86.1844-01(f) and shall be submitted to the Administrator concurrently with, or in advance of, the implementation of any change incorporated onto production vehicles.

(f) *Updates to the Application for Certification.* (1) The manufacturer must submit an update to the Part 1 Application by January 1st of the applicable model year to incorporate any running changes and/or corrections which occurred after certification. If a test group is certified less than 60 days prior to January 1st of the applicable model year, this update may be submitted to the Administrator within 90 days of the effective date on the applicable certificate of conformity.

(2) The manufacturer must submit a final update to Part 1 and Part 2 of the Application by May 1 following the end of the model year to incorporate any applicable running changes or corrections which occurred between January

1 of the applicable model year and the end of the model year. A manufacturer may request an extension for submitting the final update. The request must clearly indicate the circumstances necessitating the extension.

(3) The manufacturer may not use updates to its application to correct a misbuild situation with respect to vehicles already introduced into commerce.

(g) *Recordkeeping.* (1) This subpart includes various requirements to record data or other information. Unless we specify otherwise, store these records in any format and on any media and keep them readily available for eight years after you send an associated application for certification, or eight years after you generate the data if they do not support an application for certification. You must promptly send us organized, written records in English upon request. We may review them at any time.

(2) Upon written request by the Administrator, a manufacturer shall submit any information as described in § 86.1844-01 within 15 business days. A manufacturer may request the Administrator to grant an extension. The request must clearly indicate the circumstances necessitating the extension.

(h) *In-use information requirements.* All information requirements of the in-use verification and confirmatory programs of §§ 86.1845-01 and 86.1846-01 must be met by the due dates listed in § 86.1847-01.

(i) *Confidential information.* The provisions of 40 CFR 1068.10 and 1068.11 apply for information you submit under this subpart.

[64 FR 23925, May 4, 1999, as amended at 79 FR 23729, Apr. 28, 2014; 88 FR 4480, Jan. 24, 2023]

**§ 86.1844-01 Information requirements: Application for certification and submittal of information upon request.**

(a) All the information listed in this section must be submitted to the Agency according to the requirements specified in § 86.1843; however, we may ask you to include less information than we specify, as long as you keep the specified records.

(b) Nothing in this section limits the Administrator's discretion to require the manufacturer to submit additional records not specifically required by this section.

(c) Routine emission test records shall be retained by the manufacturer for a period of one (1) year after issuance of all certificates of conformity to which they relate. All records, other than routine emission test records, required to be produced by the manufacturer under this title shall be made available upon written request by the Administrator for a period of eight years after issuance of all certificates of conformity to which they relate.

(d) *Part 1 Application.* Part 1 must contain the following items:

(1) Correspondence and communication information, such as names, mailing addresses, phone and fax numbers, and e-mail addresses of all manufacturer representatives authorized to be in contact with EPA compliance staff. The address where official documents, such as certificates of conformity, are to be mailed must be clearly identified. At least one U.S. contact must be provided.

(2) A description of the durability group in accordance with the criteria listed in § 86.1820-01, or as otherwise used to group a product line.

(3) A description of applicable evaporative/refueling families and leak families in accordance with the criteria listed in § 86.1821-01, or as otherwise used to group a product line.

(4) *Durability information.* (i) A description of the durability method used to establish useful life durability, including exhaust and evaporative/refueling emission deterioration factors as required in §§ 86.1823, 86.1824 and 86.1825 when applicable.

(ii) The equivalency factor required to be calculated in § 86.1823-08(e)(1)(iii)(B), when applicable.

(5) A description of each test group in accordance with the criteria listed in § 86.1827-01 or as otherwise used to group a product line.

(6) Identification and description of all vehicles for which testing is required by §§ 86.1822-01 and 86.1828-01 to obtain a certificate of conformity.

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1 of the applicable model year and the end of the model year. A manufacturer may request an extension for submitting the final update. The request must clearly indicate the circumstances necessitating the extension.

(3) The manufacturer may not use updates to its application to correct a misbuild situation with respect to vehicles already introduced into commerce.

(g) *Recordkeeping.* (1) This subpart includes various requirements to record data or other information. Unless we specify otherwise, store these records in any format and on any media and keep them readily available for eight years after you send an associated application for certification, or eight years after you generate the data if they do not support an application for certification. You must promptly send us organized, written records in English upon request. We may review them at any time.

(2) Upon written request by the Administrator, a manufacturer shall submit any information as described in § 86.1844-01 within 15 business days. A manufacturer may request the Administrator to grant an extension. The request must clearly indicate the circumstances necessitating the extension.

(h) *In-use information requirements.* All information requirements of the in-use verification and confirmatory programs of §§ 86.1845-01 and 86.1846-01 must be met by the due dates listed in § 86.1847-01.

(i) *Confidential information.* The provisions of 40 CFR 1068.10 and 1068.11 apply for information you submit under this subpart.

[64 FR 23925, May 4, 1999, as amended at 79 FR 23729, Apr. 28, 2014; 88 FR 4480, Jan. 24, 2023]

### **§ 86.1844-01 Information requirements: Application for certification and submittal of information upon request.**

(a) All the information listed in this section must be submitted to the Agency according to the requirements specified in § 86.1843; however, we may ask you to include less information than we specify, as long as you keep the specified records.

(b) Nothing in this section limits the Administrator's discretion to require the manufacturer to submit additional records not specifically required by this section.

(c) Routine emission test records shall be retained by the manufacturer for a period of one (1) year after issuance of all certificates of conformity to which they relate. All records, other than routine emission test records, required to be produced by the manufacturer under this title shall be made available upon written request by the Administrator for a period of eight years after issuance of all certificates of conformity to which they relate.

(d) *Part 1 Application.* Part 1 must contain the following items:

(1) Correspondence and communication information, such as names, mailing addresses, phone and fax numbers, and e-mail addresses of all manufacturer representatives authorized to be in contact with EPA compliance staff. The address where official documents, such as certificates of conformity, are to be mailed must be clearly identified. At least one U.S. contact must be provided.

(2) A description of the durability group in accordance with the criteria listed in § 86.1820-01, or as otherwise used to group a product line.

(3) A description of applicable evaporative/refueling families and leak families in accordance with the criteria listed in § 86.1821-01, or as otherwise used to group a product line.

(4) *Durability information.* (i) A description of the durability method used to establish useful life durability, including exhaust and evaporative/refueling emission deterioration factors as required in §§ 86.1823, 86.1824 and 86.1825 when applicable.

(ii) The equivalency factor required to be calculated in § 86.1823-08(e)(1)(iii)(B), when applicable.

(5) A description of each test group in accordance with the criteria listed in § 86.1827-01 or as otherwise used to group a product line.

(6) Identification and description of all vehicles for which testing is required by §§ 86.1822-01 and 86.1828-01 to obtain a certificate of conformity.

(7) A comprehensive list of all test results, including official certification levels, and the applicable intermediate and full useful life emission standards to which the test group is to be certified as required in § 86.1829. Include the following additional information related to testing:

(i) For vehicles certified to any Tier 3 emission standards, include a comparison of drive-cycle metrics as specified in 40 CFR 1066.425(j) for each drive cycle or test phase, as appropriate.

(ii) For gasoline-fueled Tier 3 vehicles, identify the method of accounting for ethanol in determining evaporative emissions, as described in § 86.1813.

(iii) Identify any aspects of testing for which the regulations obligate EPA testing to conform to your selection of test methods.

(iv) For heavy-duty vehicles subject to air conditioning standards under § 86.1819, include the refrigerant leakage rates (leak scores), describe the type of refrigerant, and identify the refrigerant capacity of the air conditioning systems. If another company will install the air conditioning system, also identify the corporate name of the final installer.

(8) A statement that all applicable vehicles will conform to the emission standards for which emission data is not being provided, as allowed under § 86.1806 or § 86.1829. The statement shall clearly identify the standards for which emission testing was not completed.

(9) Information describing each emission control diagnostic system required by § 86.1806, including all of the following:

(i) A description of the functional operation characteristics of the diagnostic system, with additional information demonstrating that the system meets the requirements specified in § 86.1806. Include all testing and demonstration data submitted to the California Air Resources Board for certification.

(ii) The general method of detecting malfunctions for each emission-related powertrain component.

(iii) Any deficiencies, including resolution plans and schedules.

(iv) A statement that the diagnostic system is adequate for the performance

warranty test described in 40 CFR Part 85, subpart W.

(v) For vehicles certified to meet the leak standard in § 86.1813, a description of the anticipated test procedure. The description must include, at a minimum, a method for accessing the fuel system for measurements and a method for pressurizing the fuel system to perform the procedure specified in 40 CFR 1066.985. The recommended test method must include at least two separate points for accessing the fuel system, with additional access points as appropriate for multiple fuel tanks and multiple evaporative or refueling canisters.

(10) A description of all flexible or dedicated alternate fuel vehicles including, but not limited to, the fuel and/or percentage of alternate fuel for all such vehicles.

(11) A list of all auxiliary emission control devices (AECD) installed on any applicable vehicles, including a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and rationale for why it is not a defeat device as defined under § 86.1809. The following specific provisions apply for AECDs:

(i) For any AECD uniquely used at high altitudes, EPA may request engineering emission data to quantify any emission impact and validity of the AECD.

(ii) For any AECD uniquely used on multi-fuel vehicles when operated on fuels other than gasoline, EPA may request engineering emission data to quantify any emission impact and validity of the AECD.

(iii) For Tier 3 vehicles with spark-ignition engines, describe how AECDs are designed to comply with the requirements of § 86.1811-17(d). Identify which components need protection through enrichment strategies; describe the temperature limitations for those components; and describe how the enrichment strategy corresponds to those temperature limitations. We may also require manufacturers to submit this information for certification related to Tier 2 vehicles.

(12) Identification and description of all vehicles covered by each certificate



of conformity to be produced and sold within the U.S. The description must be sufficient to identify whether any given in-use vehicle is, or is not, covered by a given certificate of conformity, the test group and the evaporative/refueling family to which it belongs and the standards that are applicable to it, by matching readily observable vehicle characteristics and information given in the emission control information label (and other permanently attached labels) to indicators in the Part 1 Application. In addition, the description must be sufficient to determine for each vehicle covered by the certificate, all appropriate test parameters and any special test procedures necessary to conduct an official certification exhaust or evaporative emission test as was required by this subpart to demonstrate compliance with applicable emission standards. The description shall include, but is not limited to, information such as model name, vehicle classification (light-duty vehicle, light-duty truck, or complete heavy-duty vehicle), sales area, engine displacement, engine code, transmission type, tire size and parameters necessary to conduct exhaust emission tests such as equivalent test weight, curb and gross vehicle weight, test horsepower (with and without air conditioning adjustment), coast down time, shift schedules, cooling fan configuration, etc. and evaporative tests such as canister working capacity, canister bed volume and fuel temperature profile. The Part 1 may include ranges for test parameters in lieu of actual values.

(13) Projected U.S. vehicle sales volumes for each test group and evaporative/refueling family combination organized in such a way to determine projected compliance with any applicable implementation schedules or minimum sales requirements as specified in § 86.1810 or as otherwise required by this chapter.

(14) A request for a certificate of conformity for each test group after all required testing has been completed. The request must be signed by an authorized manufacturer representative and include a statement that the test group complies with all applicable regulations contained within this chapter.

(15)(i) For HEVs and EVs, describe the recharging procedures and methods for determining battery performance, such as state of charge and charging capacity.

(ii) For vehicles with fuel-fired heaters, include the information specified in this paragraph (d)(15)(ii). Describe the control system logic of the fuel-fired heater, including an evaluation of the conditions under which it can be operated and an evaluation of the possible operational modes and conditions under which evaporative emissions can exist. Use good engineering judgment to establish an estimated exhaust emission rate from the fuel-fired heater in grams per mile. Describe the testing used to establish the exhaust emission rate.

(16) (i) A statement indicating that the manufacturer has conducted an engineering analysis of the complete exhaust system to ensure that the exhaust system has been designed—

(A) To facilitate leak-free assembly, installation and operation for the full useful life of the vehicle; and

(B) To facilitate that such repairs as might be necessary on a properly maintained and used vehicle can be performed in such a manner as to maintain leak-free operation, using tools commonly available in a motor vehicle dealership or independent repair shop for the full useful life of the vehicle.

(ii) The analysis must cover the exhaust system and all related and attached components including the air injection system, if present, from the engine block manifold gasket surface to a point sufficiently past the last catalyst and oxygen sensor in the system to assure that leaks beyond that point will not permit air to reach the oxygen sensor or catalyst under normal operating conditions.

(iii) A “leak-free” system is one in which leakage is controlled so that it will not lead to a failure of the certification exhaust emission standards in-use.

(17) The name of an agent for service of process located in the United States. Service on this agent constitutes service on you or any of your officers or employees for any action by EPA or otherwise by the United States related to the requirements of this part.

(e) *Part 2 Application.* Part 2 must contain the following items:

(1) A list of part numbers of all emission-related components and AECDs for each emission control system, including those found on actual components. The part numbers shall be organized by engine code or other similar classification scheme.

(2) Basic calibration information, organized by engine code (or other similar classification scheme), for the major components of the fuel system, EGR system, ignition system, oxygen sensor(s) and thermostat. Examples of major components and associated calibration information include, but are not limited to; fuel pump and fuel pump flow rate, fuel pressure regulator and regulated fuel pressure, EGR valve and EGR exhaust gas flow rate at specified vacuum levels, EGR vacuum regulator and regulated vacuum, EGR orifice and orifice diameter, basic engine timing, timing RPM, idle rpm, spark plug gap, oxygen sensor output (mV), and thermostat opening temperature.

(3) Identification and description of all vehicles covered by each certificate of conformity to be produced and sold within the U.S. The description must be sufficient to identify whether any given in-use vehicle is, or is not, covered by a given certificate of conformity, the test group and the evaporative/refueling family to which it belongs and the standards that are applicable to it, by matching readily observable vehicle characteristics and information given in the emission control information label (and other permanently attached labels) to indicators in the Part 1 Application. In addition, the description must be sufficient to determine for each vehicle covered by the certificate, all appropriate test parameters and any special test procedures necessary to conduct an official certification exhaust or evaporative emission test as was required by this subpart to demonstrate compliance with applicable emission standards. The description shall include, but is not limited to, information such as model name, vehicle classification (light-duty vehicle, light-duty truck, or complete heavy-duty vehicle), sales area, engine displacement, engine code, transmission type, tire size and parameters necessary to con-

duct exhaust emission tests such as equivalent test weight, curb and gross vehicle weight, test horsepower (with and without air conditioning adjustment), coast down time, shift schedules, cooling fan configuration, etc and evaporative tests such as canister working capacity, canister bed volume and fuel temperature profile. Actual values must be provided for all parameters.

(4) Final U.S. vehicle sales volumes for each test group and evaporative/refueling family combination organized in such a way to verify compliance with any applicable implementation schedules. Final sales are not required until the final update to the Part 2 Application at the end of the model year.

(i) The manufacturer may petition the Administrator to allow actual volume produced for U.S. sale to be used in lieu of actual U.S. sales. The petition must establish that production volume is functionally equivalent to sales volume.

(ii) The U.S. sales volume shall be based on the location of the point of sale to a dealer, distributor, fleet operator, broker, or any other entity which comprises the point of first sale.

(5) Copies of all service manuals, service bulletins and instructions regarding the use, repair, adjustment, maintenance, or testing of such vehicles relevant to the control of crankcase, exhaust or evaporative emissions, as applicable, issued by the manufacturer (in written or electronic form) for use by other manufacturers, assembly plants, distributors, dealers, and ultimate purchasers. These shall be submitted to the Agency when they are made available to the public and must be updated as appropriate throughout the useful life of the corresponding vehicles.

(6) The NMOG/NMHC and HCHO to NMHC ratios established according to § 86.1845-04.

(7) The results of any production vehicle evaluation testing required for OBD systems under § 86.1806.

(f) Running change submissions. A manufacturer shall submit to the Administrator a notification of all running changes as required in accordance with §§ 86.1842-01 and 86.1843-01 at the time each change is incorporated into

production. Each running change notification shall include:

(1) A detailed description of the change;

(2) The reason for the change;

(3) The portion of the product line that is affected by the change, including information sufficient to identify whether any given in-use vehicle includes the change;

(4) The effect the change will have on emissions;

(5) Any test data that is determined to be necessary to demonstrate compliance with applicable emission standards; and

(6) A summary report for each test group which provides an overview of all running changes that have been incorporated since certification.

(g) The manufacturer shall provide the following information, or other information as deemed necessary by the Administrator, to the Agency upon written request by the Administrator. This includes any information, or explanations of such information specified in paragraphs (d), (e), and (f) of this section.

(1) A detailed description of the basis for all good engineering judgment decisions that were required to be made by the manufacturer. These include, but are not limited to, placement of vehicles into durability and test groups, the appropriateness of a durability process for future model years, worst-case vehicle selections for durability and emission data purposes, and carry-over or carry-across of emission test data.

(2) The basis used for all compliance statements submitted under this section. Each statement must be supported by the manufacturer using good engineering judgment and should include any emission test data, development test data, or other supporting information deemed necessary. This includes information necessary to demonstrate compliance with any emission standards for which a compliance statement was submitted in lieu of actual emission test data as allowed under § 86.1810.

(3) Detailed technical descriptions of emission-related components and AECDs, including schematic diagrams and hose and wire routings which de-

scribe the fundamental operating characteristics of each emission control system.

(4) Detailed calibration specifications for all emission-related components and AECDs.

(5) Any information necessary to demonstrate that no defeat devices are present on any vehicles covered by a certificate including, but not limited to, a description of the technology employed to control CO emissions at intermediate temperatures, as applicable.

(6) The following information describing any adjustable parameters:

(i) A list of those parameters which are physically capable of being adjusted (including those adjustable parameters for which access is difficult) and that, if adjusted to settings other than the manufacturer's recommended setting, may affect emissions;

(ii) A specification of the manufacturer's intended physically adjustable range of each such parameter, and the production tolerances of the limits or stops used to establish the physically adjustable range;

(iii) A description of the limits or stops used to establish the manufacturer's intended physically adjustable range of each adjustable parameter, or any other means used to inhibit adjustment;

(iv) The nominal or recommended setting, and the associated production tolerances, for each such parameter;

(v) The specifications used during all emission testing required by this subpart.

(7) A history of each motor vehicle used for certification testing, including a general description of the buildup of the vehicle and engine. Each history shall begin when any of the selection or buildup activities occur and should include details of the use of the vehicle for development testing. Each history must include a description of the origin and selection process for fuel system components, fuel injection components and emission control system components and specify the steps taken to assure that the certification vehicle will be representative of production vehicles.

(8) A record of all emission tests performed on all durability and emission

data vehicles required to be tested by this subpart including test results, the date and purpose of each test, and the number of miles accumulated on the vehicle.

(9) A record and description of any significant events (including extraordinary events such as vehicle accidents or dynamometer runaway) affecting any certification test vehicle, including all maintenance, servicing or tests performed to diagnose engine or emission control system performance. The date and time of each event and an explanation must be included.

(10) For vehicles with non-integrated refueling emission control systems, a description of the drivedown used to purge the refueling canister and a description of the procedures used to determine the number of equivalent UDDS cycles required to purge the refueling canisters, as determined from the fuel economy on the UDDS applicable to the test vehicle of that evaporative/refueling family and emission control system combination required to use a volume of fuel equal to 85% of fuel tank volume and from subpart B of this part.

(11) A description of all procedures, including any special procedures, used to comply with applicable test requirements of this subpart. Any special procedures used to establish durability data or emission deterioration factors required to be determined under §§ 86.1823-01, 86.1824-01 and 86.1825-01 and to conduct emission tests required to be performed on applicable emission data vehicles under § 86.1829-01 according to test procedures contained within this Title must also be included.

(12) A description of any unique procedures required to perform evaporative/refueling emission tests for all vehicles in each evaporative/refueling family and a description of the method used to develop those unique procedures, including canister working capacity, canister bed volume and fuel temperature profile for the running loss test.

(13) A description of the method to be used to decode vehicle identification numbers.

(14) For complete heavy-duty vehicles only, all hardware (including scan tools) and documentation necessary for

EPA to read, interpret, and store (in engineering units if applicable) any information broadcast by an engine's on-board computers and electronic control modules which relates in anyway to emission control devices and auxiliary emission control devices, provided that such hardware, passwords, or documentation exists and is not otherwise commercially available. Passwords include any information necessary to enable generic scan tools or personal computers access to proprietary emission related information broadcast by an engine's on-board computer, if such passwords exist. This requirement includes access by EPA to any proprietary code information which may be broadcast by an engine's on-board computer and electronic control modules. Information which is confidential business information must be marked as such. Engineering units refers to the ability to read, interpret, and store information in commonly understood engineering units, for example, engine speed in revolutions per minute or per second, injection timing parameters such as start of injection in degree's before top-dead center, fueling rates in cubic centimeters per stroke, vehicle speed in milers per hour or per kilometer.

(h) *In-use information requirements.* Manufacturers must submit the information required in § 86.1847-01.

(i) For exhaust emission testing for Tier 2 and interim non-Tier 2 vehicles, if approved by the Administrator in advance, manufacturers may submit exhaust emission test data generated under California test procedures to comply with any certification and in-use testing requirements under this subpart. The Administrator may require supporting information to establish that differences between California and Federal exhaust testing procedures and fuels will not produce significant differences in emission results. The Administrator may require that in-use



testing be performed using Federal test fuels as specified in § 86.113–04(a)(1).

[64 FR 23925, May 4, 1999, as amended at 65 FR 6865, Feb. 10, 2000; 65 FR 59976, Oct. 6, 2000; 71 FR 2837, Jan. 17, 2006; 71 FR 51489, Aug. 30, 2006; 72 FR 8566, Feb. 26, 2007; 75 FR 66457, Oct. 28, 2010; 76 FR 57378, Sept. 15, 2011; 78 FR 36388, June 17, 2013; 79 FR 23730, Apr. 28, 2014; 80 FR 9109, Feb. 19, 2015; 81 FR 73991, Oct. 25, 2016]

**§ 86.1845–04 Manufacturer in-use verification testing requirements.**

(a) *General requirements.* (1) Manufacturers of LDV, LDT, MDPV and complete HDV must test, or cause to have tested, a specified number of vehicles. Such testing must be conducted in accordance with the provisions of this section.

(2) Unless otherwise approved by the Administrator, no emission measurements made under the requirements of this section may be adjusted by Reactivity Adjustment Factors (RAFs).

(3) The following provisions apply regarding the possibility of residual effects from varying fuel sulfur levels:

(i) Vehicles certified to Tier 3 standards under § 86.1811 must always measure emissions over the FTP, then over the HFET (if applicable), then over the US06 portion of the SFTP. If a Tier 3 vehicle meets all the applicable emission standards except the FTP or HFET emission standard for NMOG + NO<sub>x</sub>, and a fuel sample from the tested vehicle (representing the as-received condition) has a measured fuel sulfur level exceeding 15 ppm when measured as described in 40 CFR 1065.710, the manufacturer may repeat the FTP and HFET measurements and use the new emission values as the official results for that vehicle. For all other cases of testing Tier 3 vehicles, measured emission levels from the first test will be considered the official results for the test vehicle, regardless of any test results from additional test runs. Where repeat testing is allowed, the vehicle may operate for up to two US06 cycles (with or without measurement) before repeating the FTP and HFET measurements. The repeat measurements must include both FTP and HFET, even if the vehicle failed only one of those tests, unless the HFET is not required for a particular vehicle. Tier 3 vehicles may not undergo any other vehicle pre-

conditioning to eliminate fuel sulfur effects on the emission control system, unless we approve it in advance.

(ii) Upon a manufacturer's written request, prior to in-use testing, that presents information to EPA regarding pre-conditioning procedures designed solely to remove the effects of high sulfur in gasoline from vehicles produced through the 2007 model year, EPA will consider allowing such procedures on a case-by-case basis. EPA's decision will apply to manufacturer in-use testing conducted under this section and to any in-use testing conducted by EPA. Such procedures are not available for complete HDV. For model year 2007 and later Tier 2 vehicles, this provision can be used only in American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands, and then only if low sulfur gasoline is determined by the Administrator to be unavailable in that specific location.

(b) *Low-mileage testing*—(1) *Test groups.* Testing must be conducted for each test group.

(2) *Vehicle mileage.* All test vehicles must have a minimum odometer mileage of 10,000 miles.

(3) *Number of test vehicles.* For each test group, the minimum number of vehicles that must be tested is specified in Table S04–06 and Table S04–07 of this paragraph (b)(3). After testing the minimum number of vehicles of a specific test group as specified in Table S04–06 or S04–07 of this paragraph (b)(3), a manufacturer may test additional vehicles upon request and approval by the Agency prior to the initiation of the additional testing. Any additional testing must be completed within the testing completion requirements shown in § 86.1845–04(b)(4). The request and Agency approval (if any) shall apply to test groups on a case by case basis and apply only to testing under this paragraph. Separate approval will be required to test additional vehicles under paragraph (c) of this section. In addition to any testing that is required under Table S04–06 and Table S04–07, a manufacturer shall test one vehicle from each evaporative/refueling family for evaporative/refueling emissions. If a manufacturer believes it is unable to procure the test vehicles necessary to test the required number of vehicles in

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vehicle approved by the Administrator in consultation with the manufacturer, the malfunction indicator light does not illuminate under any of the circumstances described in § 86.1806–01(k)(1) through (6).

(h) Vehicles equipped with aftertreatment technologies such as catalysts, otherwise covered by a certificate, which are driven outside the United States, Canada, and Mexico will be presumed to have been operated on leaded gasoline resulting in deactivation of such components as catalysts and oxygen sensors. If these vehicles are imported or offered for importation without retrofit of the catalyst or other aftertreatment technology, they will be considered not to be within the coverage of the certificate unless included in a catalyst or other aftertreatment technology control program operated by a manufacturer or a United States Government agency and approved by the Administrator.

(i) For all light-duty vehicles and light light-duty trucks certified to NLEV standards under §§ 86.1710 through 86.1712, the following provisions apply:

(1) All certificates issued are conditional upon manufacturer compliance with all provisions of §§ 86.1710 through 86.1712 both during and after model year production.

(2) Failure to meet the requirements of § 86.1710(a) through (d) will be considered to be a failure to satisfy the conditions upon which the certificate(s) was issued and the vehicles sold in violation of the fleet average NMOG standard shall not be covered by the certificate.

(3) Failure to comply fully with the prohibition against a manufacturer selling credits that it has not generated or are not available, as specified in § 86.1710(e), will be considered to be a failure to satisfy the conditions upon which the certificate(s) was issued and the vehicles sold in violation of this prohibition shall not be covered by the certificate.

(4) Failure to comply fully with the prohibition against offering for sale Tier 1 vehicles and TLEVs in the Northeast Trading Region, as defined in § 86.1702, after model year 2000 if vehicles with the same test groups are

not certified and offered for sale in California in the same model year, as specified in § 86.1711(a), will be considered to be a failure to satisfy the conditions upon which the certificate(s) was issued and the vehicles sold in violation of this prohibition shall not be covered by the certificate.

(5)(i) The Administrator will issue a National LEV certificate of conformity for 2000 model year vehicles or engines certified to comply with the California TLEV emission standards.

(ii) This certificate of conformity shall be granted after the Administrator has received and reviewed the California Executive Order a manufacturer has received for the same vehicles or engines.

(iii) Vehicles or engines receiving a certificate of conformity under the provisions in this paragraph can only be sold in the states included in the NTR, as defined in § 86.1702, and those states where the sale of California-certified vehicles is otherwise authorized.

(6) The manufacturer shall bear the burden of establishing to the satisfaction of the Administrator that the conditions upon which the certificate was issued were satisfied.

(7) For recall and warranty purposes, vehicles not covered by a certificate because of a violation of these conditions of the certificate will continue to be held to the standards stated in the certificate that would have otherwise applied to the vehicles.

[64 FR 23925, May 4, 1999, as amended at 65 FR 6866, Feb. 10, 2000; 65 FR 59977, Oct. 6, 2000]

### **§ 86.1848–10 Compliance with emission standards for the purpose of certification.**

Section 86.1848–10 includes text that specifies requirements that differ from § 86.1848–01. Where a paragraph in § 86.1848–01 is identical and applicable to § 86.1848–10, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.1848–01.” Where a corresponding paragraph of § 86.1848–01 is not applicable, this is indicated by the statement “[Reserved]”

(a) through (b) [Reserved]. For guidance see § 86.1848–01.

(c) The following conditions apply to all certificates:

(1) The manufacturer must supply all required information according to the provisions of §§ 86.1843-01 and 86.1844-01.

(2) The manufacturer must comply with all certification and in-use emission standards contained in subparts S and H of this part both during and after model year production.

(3) The manufacturer must comply with all implementation schedules sales percentages as required in § 86.1810 or elsewhere in this part. Failure to meet a required implementation schedule sales percentage will be considered to be a failure to satisfy a condition upon which the certificate was issued and any vehicles or trucks sold in violation of the implementation schedule are not to be covered by the certificate.

(4) For incomplete light-duty trucks and incomplete heavy-duty vehicles, a certificate covers only those new motor vehicles that, when completed by having the primary load-carrying device or container attached, conform to the maximum curb weight and frontal area limitations described in the application for certification as required in § 86.1844-01.

(5) The manufacturer must meet the in-use testing and reporting requirements contained in §§ 86.1845-01, 86.1846-01, and 86.1847-01, as applicable. Failure to meet the in-use testing or reporting requirements shall be considered a failure to satisfy a condition upon which the certificate was issued. A vehicle or truck is considered to be covered by the certificate only if the manufacturer fulfills this condition upon which the certificate was issued.

(6) Vehicles are covered by a certificate of conformity only if they are in all material respects as described in the manufacturer's application for certification (Part I and Part II).

(7) All certificates of conformity issued are conditional upon compliance with all the provisions of §§ 86.1811 through 86.1816 and §§ 86.1860 through 86.1862 both during and after model year production. The manufacturer bears the burden of establishing to the satisfaction of the Administrator that the terms and conditions upon which each certificate was issued were satis-

fied. For recall and warranty purposes, vehicles not covered by a certificate of conformity will continue to be held to the standards stated or referenced in the certificate that otherwise would have applied to the vehicles.

(i) Failure to meet the applicable fleet average standard will be considered to be a failure to satisfy the terms and conditions upon which the certificate was issued and the vehicles sold in violation of the fleet average standard will not be covered by the certificate.

(ii) Failure to comply fully with the prohibition against selling credits that it has not generated or that are not available, as specified in § 86.1861, will be considered a failure to satisfy the terms and conditions upon which the certificate was issued and the vehicles sold in violation of this prohibition will not be covered by the certificate.

(iii) Failure to comply fully with the phase-in requirements of §§ 86.1811 through 86.1816 will be considered a failure to satisfy the terms and conditions upon which the certificate was issued and the vehicles sold that do not comply with the applicable standards, up to the number needed to comply, will not be covered by the certificate.

(8) For LDV/LLDTs and HLDT/MDPVs, all certificates of conformity issued are conditional upon compliance with all provisions of §§ 86.1811-10 and 86.1864-10 both during and after model year production. The manufacturer bears the burden of establishing to the satisfaction of the Administrator that the terms and conditions upon which the certificate(s) was (were) issued were satisfied. For recall and warranty purposes, vehicles not covered by a certificate of conformity will continue to be held to the standards stated or referenced in the certificate that otherwise would have applied to the vehicles.

(i) Failure to meet the fleet average cold temperature NMHC requirements will be considered a failure to satisfy the terms and conditions upon which the certificate(s) was (were) issued and the vehicles sold in violation of the fleet average NMHC standard will not be covered by the certificate(s).

(ii) Failure to comply fully with the prohibition against selling credits that

are not generated or that are not available, as specified in § 86.1864–10, will be considered a failure to satisfy the terms and conditions upon which the certificate(s) was (were) issued and the vehicles sold in violation of this prohibition will not be covered by the certificate(s).

(iii) Failure to comply fully with the phase-in requirements of § 86.1811–10 will be considered a failure to satisfy the terms and conditions upon which the certificate(s) was (were) issued and the vehicles sold that do not comply with cold temperature NMHC requirements, up to the number needed to comply, will not be covered by the certificate(s).

(9) For 2012 and later model year LDVs, LDTs, and MDPVs, all certificates of conformity issued are conditional upon compliance with all provisions of §§ 86.1818 and 86.1865 both during and after model year production. Similarly, for 2014 and later model year HDV, and other HDV subject to standards under § 86.1819, all certificates of conformity issued are conditional upon compliance with all provisions of §§ 86.1819 and 86.1865 both during and after model year production. The manufacturer bears the burden of establishing to the satisfaction of the Administrator that the terms and conditions upon which the certificate(s) was (were) issued were satisfied. For recall and warranty purposes, vehicles not covered by a certificate of conformity will continue to be held to the standards stated or referenced in the certificate that otherwise would have applied to the vehicles.

(i) Failure to meet the fleet average CO<sub>2</sub> requirements will be considered a failure to satisfy the terms and conditions upon which the certificate(s) was (were) issued and the vehicles sold in violation of the fleet average CO<sub>2</sub> standard will not be covered by the certificate(s). The vehicles sold in violation will be determined according to § 86.1865–12(k)(8).

(ii) Failure to comply fully with the prohibition against selling credits that are not generated or that are not available, as specified in § 86.1865–12, will be considered a failure to satisfy the terms and conditions upon which the certificate(s) was (were) issued and the

vehicles sold in violation of this prohibition will not be covered by the certificate(s).

(iii) For manufacturers using the conditional exemption under § 86.1801–12(k), failure to fully comply with the fleet production thresholds that determine eligibility for the exemption will be considered a failure to satisfy the terms and conditions upon which the certificate(s) was (were) issued and the vehicles sold in violation of the stated sales and/or production thresholds will not be covered by the certificate(s).

(iv) For manufacturers that are determined to be operationally independent under § 86.1838–01(d), failure to report a material change in their status within 60 days as required by § 86.1838–01(d)(2) will be considered a failure to satisfy the terms and conditions upon which the certificate(s) was (were) issued and the vehicles sold in violation of the operationally independent criteria will not be covered by the certificate(s).

(v) For manufacturers subject to an alternative fleet average greenhouse gas emission standard approved under § 86.1818–12(g), failure to comply with the annual sales thresholds that are required to maintain use of those standards, including the thresholds required for new entrants into the U.S. market, will be considered a failure to satisfy the terms and conditions upon which the certificate(s) was (were) issued and the vehicles sold in violation of stated sales and/or production thresholds will not be covered by the certificate(s).

(d)–(i) [Reserved]. For guidance see § 86.1848–01.

[72 FR 8567, Feb. 26, 2007, as amended at 75 FR 25690, May 7, 2010; 76 FR 39522, July 6, 2011; 77 FR 63163, Oct. 15, 2012; 79 FR 23734, Apr. 28, 2014; 81 FR 73991, Oct. 25, 2016]

#### § 86.1849–01 Right of entry.

(a) Any manufacturer who has applied for certification of a new motor vehicle subject to testing under this subpart, or any manufacturer or entity who conducts or causes to be conducted in-use verification or in-use confirmatory testing under this subpart, shall admit or cause to be admitted any EPA



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from vehicles certified to a useful life of 15 years/150,000 miles.

(h) *Additional credits for vehicles certified to low bins.* A manufacturer may obtain additional NO<sub>x</sub> credits by certifying vehicles to bins 1 and/or 2 in model years from 2001 through 2005 subject to the following requirements:

(1) When computing the fleet average Tier 2 NO<sub>x</sub> emissions using the formula in paragraph (f)(2) of this section, the manufacturer may multiply the number of vehicles certified to bins 1 and 2 by the applicable multiplier shown in Table S04–11 when computing the denominator in the formula. These multipliers may not be used after model year 2005. The table follows:

TABLE S04–11—MULTIPLIERS FOR ADDITIONAL TIER 2 NO<sub>x</sub> CREDITS FOR BIN 1 AND 2 LDV/TS

Bin	Model year	Multiplier 73
2 .....	2001, 2002, 2003, 2004, 2005 .....	1.5
1 .....	2001, 2002, 2003, 2004, 2005 .....	2.0

(2) Optionally, instead of the process described in paragraph (h)(1) of this section, when computing Tier 2 NO<sub>x</sub> credits using the formula in § 86.1861–04(b)(1), the manufacturer may mul-

tiply the number of vehicles certified to bin 1 and bin 2 by the applicable multiplier shown in Table S04–11 in paragraph (h)(1) of this section when computing the “Total number of Tier 2 Vehicles Sold, Including ZEVs and HEVs”. These multipliers may not be used after model year 2005.

[65 FR 6866, Feb. 10, 2000, as amended at 66 FR 19310, Apr. 13, 2001]

### § 86.1860–17 How to comply with the Tier 3 fleet-average standards.

(a) You must show that you meet the applicable fleet-average NMOG + NO<sub>x</sub> standards from §§ 86.1811 and 86.1816 and the fleet-average evaporative emission standards from § 86.1813 as described in this section. Note that separate fleet-average calculations are required for the FTP and SFTP exhaust emission standards under § 86.1811.

(b) Calculate your fleet-average value for each model year for all vehicle models subject to a separate fleet-average standard using the following equation, rounded to the nearest 0.001 g/mile for NMOG + NO<sub>x</sub> emissions and the nearest 0.001 g/test for evaporative emissions:

$$\text{Fleet average value} = \frac{\sum_{i=1}^b (N_i \cdot FEL_i)}{N_{\text{total}}}$$

Where:

$i$  = A counter associated with each separate Tier 3 test group or evaporative family.

$b$  = The number of separate Tier 3 test groups or evaporative families from a given averaging set to which you certify your vehicles.

$N_i$  = The actual nationwide sales for the model year for test group or evaporative family  $i$ . Include allowances for evaporative emissions as described in § 86.1813.

$FEL_i$  = The FEL selected for test group or evaporative family  $i$ . Disregard any separate standards that apply for in-use testing or for testing under high-altitude conditions.

$N_{\text{total}}$  = The actual nationwide sales for the model year for all your Tier 3 vehicles from the averaging set, except as described in paragraph (c) of this section. The pool of vehicle models included in

$N_{\text{total}}$  may vary by model year, and it may be different for evaporative standards, FTP exhaust standards, and SFTP exhaust standards in a given model year.

(c) Do not include any of the following vehicles to calculate your fleet-average value:

(1) Vehicles that you do not certify to the standards of this part because they are permanently exempted under 40 CFR part 85 or part 1068.

(2) Exported vehicles.

(3) Vehicles excluded under § 86.1801.

(4) For model year 2017, do not include vehicle sales in California or the section 177 states for calculating the fleet average value for evaporative emissions.

(d) Except as specified in paragraph (e) of this section, your calculated fleet-average value may not exceed the corresponding fleet-average standard for the model year.

(e) You may generate or use emission credits related to your calculated fleet-average value as follows:

(1) You may generate emission credits as described in § 86.1861 if your fleet-average value is below the corresponding fleet-average standard.

(2) You may use emission credits as described in § 86.1861 if your fleet-average value is above the corresponding fleet-average standard. Except as specified in paragraph (e)(3) of this section, you must use enough credits for each model year to show that your adjusted fleet average value does not exceed the fleet-average standard.

(3) The following provisions apply if you do not have enough emission credits to demonstrate compliance with a fleet-average standard in a given model year:

(i) You may have a credit deficit for up to three model years within an averaging set under § 86.1861-17(c). You may not bank emission credits with respect to a given emission standard during a model year in which you have a credit deficit in the same averaging set. If you fail to meet the fleet-average standard for four consecutive model years, the vehicles causing you to exceed the fleet-average standard will be considered not covered by the certificate of conformity. You will be subject to penalties on an individual-vehicle basis for sale of vehicles not covered by a certificate of conformity.

(ii) You must notify us in writing how you plan to eliminate the credit deficit within the specified time frame. If we determine that your plan is unreasonable or unrealistic, we may deny an application for certification for a test group or evaporative family if its bin standard or FEL would increase your credit deficit. We may determine that your plan is unreasonable or unrealistic based on a consideration of past and projected use of specific technologies, the historical sales mix of your vehicle models, your commitment to limit sales of higher-emission vehicles, and expected access to traded credits. We may also consider your

plan unreasonable if your fleet-average emission level increases relative to the first model year of a credit deficit or any later model year. We may require that you send us interim reports describing your progress toward resolving your credit deficit over the course of a model year.

(f) If the applicable bin standards and FELs for all your vehicle models are at or below a corresponding fleet-average standard for a given model year, and you do not want to generate emission credits, you may omit the calculations described in this section.

(g) For purposes of calculating the statute of limitations, the following actions are all considered to occur at the expiration of the deadline for offsetting a deficit as specified in paragraph (e)(3) of this section:

(1) Failing to meet the requirements of paragraph (e)(3) of this section.

(2) Failing to satisfy the conditions upon which a certificate was issued relative to offsetting a deficit.

(3) Selling, offering for sale, introducing or delivering into U.S. commerce, or importing vehicles that are found not to be covered by a certificate as a result of failing to offset a deficit.

[79 FR 23735, Apr. 28, 2014]

**§ 86.1861-04 How do the Tier 2 and interim non-Tier 2 NO<sub>x</sub> averaging, banking and trading programs work?**

(a) *General provisions for Tier 2 credits and debits.* (1) A manufacturer whose Tier 2 fleet average NO<sub>x</sub> emissions exceeds the 0.07 g/mile standard must complete the calculation at paragraph (b) of this section to determine the size of its NO<sub>x</sub> credit deficit. A manufacturer whose Tier 2 fleet average NO<sub>x</sub> emissions is less than or equal to the 0.07 g/mile standard must complete the calculation in paragraph (b) of this section if it desires to generate NO<sub>x</sub> credits. In either case, the number of credits or debits determined in the calculation at paragraph (b) of this section must be rounded to the nearest whole number.

(2) Credits generated according to the calculation in paragraph (b)(1) of this section may be banked for future use or traded to another manufacturer.

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(4) For purposes of calculating the statute of limitations, a violation of the requirements of paragraph (e)(1) of this section, a failure to satisfy the conditions upon which a certificate(s) was issued and hence a sale of vehicles not covered by the certificate, all occur upon the expiration of the deadline for offsetting debits specified in paragraph (e)(1) of this section.

(f) *NO<sub>x</sub> credit transfers.* (1) EPA may reject NO<sub>x</sub> credit transfers if the involved manufacturers fail to submit the credit transfer notification in the annual report.

(2) A manufacturer may not sell credits that are not available for sale pursuant to the provisions in paragraphs (a)(2) and (a)(7) of this section.

(3) In the event of a negative credit balance resulting from a transaction, both the buyer and seller are liable, except in cases involving fraud. EPA may void *ab initio* the certificates of conformity of all engine families participating in such a trade.

(4)(i) If a manufacturer transfers a credit that it has not generated pursuant to paragraph (b) of this section or acquired from another party, the manufacturer will be considered to have generated a debit in the model year that the manufacturer transferred the credit. The manufacturer must offset such debits by the deadline for the annual report for that same model year.

(ii) Failure to offset the debits within the required time period will be considered a failure to satisfy the conditions upon which the certificate(s) was issued and will be addressed pursuant to paragraph (e) of this section.

(g) *Interim non-Tier 2 NO<sub>x</sub> credits and debits; Interim non-Tier 2 averaging, banking and trading.* Interim non-Tier 2 NO<sub>x</sub> credits must be generated, calculated, tracked, averaged, banked, traded, accounted for and reported upon separately from Tier 2 credits. The provisions of this section applicable to Tier 2 NO<sub>x</sub> credits and debits and Tier 2 averaging banking and trading are applicable to interim non-Tier 2 LDV/LLDTs and interim non-Tier 2 HLDT/MDPVs with the following exceptions:

(1) Provisions for early banking under paragraph (c) of this section do not apply.

(2) The fleet average NO<sub>x</sub> standard used for calculating credits is 0.30 grams per mile for interim non-Tier 2 LDV/LLDTs and 0.20 g/mi for interim non-Tier 2 HLDT/MDPVs. (The interim non-Tier 2 NO<sub>x</sub> standard of 0.30 (or 0.20) g/mi replaces 0.07 in the text and calculation in this section.)

(3) Interim non-Tier 2 NO<sub>x</sub> credit deficits may be carried forward for three years subject to the requirements of § 86.1860–04(e).

[65 FR 6868, Feb. 10, 2000, as amended at 66 FR 19311, Apr. 13, 2001]

### § 86.1861–17 How do the NMOG + NO<sub>x</sub> and evaporative emission credit programs work?

You may use emission credits for purposes of certification to show compliance with the applicable fleet-average NMOG + NO<sub>x</sub> standards from §§ 86.1811 and 86.1816 and the fleet-average evaporative emission standards from § 86.1813 as described in 40 CFR part 1037, subpart H, with certain exceptions and clarifications as specified in this section. MDPVs are subject to the same provisions of this section that apply to LDT4.

(a) Calculate emission credits as described in this paragraph (a) instead of using the provisions of 40 CFR 1037.705. Calculate positive or negative emission credits relative to the applicable fleet-average standard. Calculate positive emission credits if your fleet-average level is below the standard. Calculate negative emission credits if your fleet-average value is above the standard. Calculate credits separately for each type of standard and for each averaging set. Calculate emission credits using the following equation, rounded to the nearest whole number:

$$\text{Emission credit} = \text{Volume} \cdot [\text{Fleet average standard} - \text{Fleet average value}]$$

Where:

*Emission credit* = The positive or negative credit for each discrete fleet-average standard, in units of vehicle-grams per mile for NMOG + NO<sub>x</sub> and vehicle-grams per test for evaporative emissions.

*Volume* = Sales volume in a given model year from the collection of test groups or evaporative families covered by the fleet-average value, as described in § 86.1860.

(b) The following restrictions apply instead of those specified in 40 CFR 1037.740:

(1) Except as specified in paragraph (b)(2) of this section, emission credits may be exchanged only within an averaging set, as follows:

(i) HDV represent a separate averaging set with respect to all emission standards.

(ii) Except as specified in paragraph (b)(1)(iii) of this section, LDV and LDT represent a single averaging set with respect to all emission standards. Note that FTP and SFTP credits are not interchangeable.

(iii) LDV and LDT1 certified to standards based on a useful life of 120,000 miles and 10 years together represent a single averaging set with respect to NMOG + NO<sub>x</sub> emission standards. Note that FTP and SFTP credits are not interchangeable.

(iv) The following separate averaging sets apply for evaporative emission standards:

(A) LDV and LDT1 together represent a single averaging set.

(B) LDT2 represents a single averaging set.

(C) HLDT represents a single averaging set.

(D) HDV represents a single averaging set.

(2) You may exchange evaporative emission credits across averaging sets as follows if you need additional credits to offset a deficit after the final year of maintaining deficit credits as allowed under paragraph (c) of this section:

(i) You may exchange LDV/LDT1 and LDT2 emission credits.

(ii) You may exchange HLDT and HDV emission credits.

(3) Except as specified in paragraph (b)(4) of this section, credits expire after five years. For example, credits you generate in model year 2018 may be used only through model year 2023.

(4) For the Tier 3 declining fleet-average FTP and SFTP emission standards for NMOG + NO<sub>x</sub> described in § 86.1811-17(b)(8), credits generated in model years 2017 through 2024 expire after eight years, or after model year 2030, whichever comes first; however, these credits may not be traded after five years. This extended credit life

also applies for small-volume manufacturers generating credits under § 86.1811-17(h)(1) in model years 2022 through 2024. Note that the longer credit life does not apply for heavy-duty vehicles, for vehicles certified under the alternate phase-in described in § 86.1811-17(b)(9), or for vehicles generating early Tier 3 credits under § 86.1811-17(b)(11) in model year 2017.

(c) The credit-deficit provisions 40 CFR 1037.745 apply to the NMOG + NO<sub>x</sub> and evaporative emission standards for Tier 3 vehicles.

(d) The reporting and recordkeeping provisions of § 86.1862 apply instead of those specified in 40 CFR 1037.730 and 1037.735.

(e) The provisions of 40 CFR 1037.645 do not apply.

[79 FR 23735, Apr. 28, 2014]

**§ 86.1862-04 Maintenance of records and submittal of information relevant to compliance with fleet-average standards.**

(a) *Overview.* This section describes reporting and recordkeeping requirements for vehicles subject to the following standards:

(1) Tier 2 NO<sub>x</sub> emission standard for LDV and LDT in § 86.1811-04.

(2) Tier 3 FTP emission standard for NMOG + NO<sub>x</sub> for LDV and LDT in § 86.1811.

(3) Tier 3 SFTP emission standard for NMOG + NO<sub>x</sub> for LDV and LDT (including MDPV) in § 86.1811.

(4) Tier 3 evaporative emission standards in § 86.1813.

(5) Tier 3 FTP emission standard for NMOG + NO<sub>x</sub> for HDV (other than MDPV) in § 86.1816.

(6) Cold temperature NMHC standards in § 86.1811.

(b) *Maintenance of records.* (1) The manufacturer producing any vehicles subject to a fleet-average standard under this subpart must establish and maintain all the following information in organized and indexed records for each model year:

(i) Model year.

(ii) Applicable fleet-average standard.

(iii) Calculated fleet-average value.

(iv) All values used in calculating the fleet-average value achieved.



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(d) *Notice of opportunity for hearing.* Any voiding of the certificate under paragraph (a)(6) of this section will be made only after EPA has offered the manufacturer concerned an opportunity for a hearing conducted in accordance with 40 CFR part 1068, subpart G and, if a manufacturer requests such a hearing, will be made only after an initial decision by the Presiding Officer.

[79 FR 23735, Apr. 28, 2014, as amended at 81 FR 73992, Oct. 25, 2016]

### § 86.1863-07 Optional chassis certification for diesel vehicles.

This section does not apply for vehicles certified to the Tier 3 standards in § 86.1816-18, including those vehicles that certify to the Tier 3 standards before model year 2018.

(a) A manufacturer may optionally certify heavy-duty diesel vehicles 14,000 pounds GVWR or less to the standards specified in § 86.1816. Such vehicles must meet all the requirements of this subpart S that are applicable to Otto-cycle vehicles, except for evaporative, refueling, and OBD requirements where the diesel-specific OBD requirements would apply.

(b) For OBD, diesel vehicles optionally certified under this section are subject to the OBD requirements of § 86.1806.

(c) Diesel vehicles certified under this section may be tested using the test fuels, sampling systems, or analytical systems specified for diesel engines in subpart N of this part or in 40 CFR part 1065.

(d) Diesel vehicles optionally certified under this section to the standards of this subpart may not be included in any averaging, banking, or trading program for criteria emissions under this part.

(e) The provisions of § 86.004-40 apply to the engines in vehicles certified under this section.

(f) Diesel vehicles may be certified under this section to the standards applicable to model year 2008 in earlier model years.

(g) Diesel vehicles optionally certified under this section in model years 2007, 2008, or 2009 shall be included in phase-in calculations specified in § 86.007-11(g).

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(h) [Reserved]

(i) Non-petroleum fueled complete vehicles subject to the standards and requirements of this part under § 86.016-01(d)(5) are subject to the provisions of this section applicable to diesel-fueled heavy-duty vehicles.

[76 FR 57379, Sept. 15, 2011, as amended at 79 FR 23736, Apr. 28, 2014; 81 FR 73992, Oct. 25, 2016]

### § 86.1864-10 How to comply with the fleet average cold temperature NMHC standards.

(a) *Applicability.* Cold temperature NMHC exhaust emission standards apply to the following vehicles, subject to the phase-in requirements in § 86.1811-10(g)(3) and (4):

(1) 2010 and later model year LDV/LLDTs.

(2) 2012 and later model year HLDV/MDPVs.

(3) [Reserved]

(4) Vehicles imported by ICIs as defined in 40 CFR 85.1502.

(b) *Useful life requirements.* Full useful life requirements for cold temperature NMHC standards are defined in § 86.1805-04(g). There is not an intermediate useful life standard for cold temperature NMHC standards.

(c) *Altitude.* Altitude requirements for cold temperature NMHC standards are provided in § 86.1810-09(f).

(d) *Small volume manufacturer certification procedures.* Certification procedures for small volume manufacturers are provided in § 86.1838-01.

(e) *Cold temperature NMHC standards.* Fleet average cold temperature NMHC standards are provided in § 86.1811-10(g)(2).

(f) *Phase-in.* Phase-in of the cold temperature NMHC standards are provided in § 86.1811-10(g)(3) and (4).

(g) *Phase-in flexibilities for small volume manufacturers.* Phase-in flexibilities for small volume manufacturer compliance with the cold temperature NMHC standards are provided in § 86.1811-04(k)(5).

(h) *Hardship provisions for small volume manufacturers.* Hardship provisions for small volume manufacturers related to the cold temperature NMHC standards are provided in § 86.1811-04(q)(1).

(i) *In-use standards for applicable phase-in models.* In-use cold temperature NMHC standards for applicable phase-in models are provided in § 86.1811-10(u).

(j) *Durability procedures and method of determining deterioration factors (DFs).* The durability data vehicle selection procedures of § 86.1822-01 and the durability demonstration procedures of § 86.1823-06 apply for cold temperature NMHC standards. For determining compliance with full useful life cold temperature NMHC emission standards, the 68–86 °F, 120,000 mile full useful life NMOG DF may be used.

(k) *Vehicle test procedure.* (1) The test procedure for demonstrating compliance with cold temperature NMHC standards is contained in subpart C of this part. With prior EPA approval, alternative testing procedures may be used, as specified in § 86.106-96(a), provided cold temperature NMHC emissions test results are equivalent or superior.

(2) Testing of all LDVs, LDTs and MDPVs to determine compliance with cold temperature NMHC exhaust emission standards set forth in this section must be on a loaded vehicle weight (LVW) basis, as defined in § 86.1803-01.

(3) Testing for the purpose of providing certification data is required only at low altitude conditions and only for vehicles that can operate on gasoline, except as requested in §§ 86.1810-09(f) and 86.1844-01(d)(11). If hardware and software emission control strategies used during low altitude condition testing are not used similarly across all altitudes for in-use operation, the manufacturer must include a statement in the application for certification, in accordance with §§ 86.1844-01(d)(11) and 86.1810-09(f), stating what the different strategies are and why they are used. If hardware and software emission control strategies used during testing with gasoline are not used similarly with all fuels that can be used in multi-fuel vehicles, the manufacturer will include a statement in the application for certification, in accordance with §§ 86.1844-01(d)(11) and 86.1810-09(f), stating what the different strategies are and why they are used. For example, unless a manufacturer states otherwise, air pumps used to

control emissions on dedicated gasoline vehicles or multi-fuel vehicles during low altitude conditions must also be used to control emissions at high altitude conditions, and software used to control emissions or closed loop operation must also operate similarly at low and high altitude conditions and similarly when multi-fueled vehicles are operated on gasoline and alternate fuels. These examples are for illustrative purposes only; similar strategies would apply to other currently used emission control technologies and/or emerging or future technologies.

(l) *Emission data vehicle (EDV) selection.* Provisions for selecting the appropriate EDV for the cold temperature NMHC standards are provided in §§ 86.1828-10(g) and 86.1829-01(b)(3).

(m) *Calculating the fleet average cold temperature NMHC standard.* Manufacturers must compute separate sales-weighted fleet average cold temperature NMHC emissions at the end of the model year for LDV/LLDTs and HLDT/MDPVs, using actual sales, and certifying test groups to FELs, as defined in § 86.1803-01. The FEL becomes the standard for each test group, and every test group can have a different FEL. The certification resolution for the FEL will be 0.1 grams/mile. LDVs and LLDTs must be grouped together when calculating the fleet average, and HLDTs and MDPVs must also be grouped together to determine the fleet average. Manufacturers must compute the sales-weighted cold temperature NMHC fleet averages using the following equation, rounded to the nearest 0.1 grams/mile:

Fleet average cold temperature NMHC exhaust emissions (grams/mile) =  $\Sigma(N \times \text{FEL}) \div \text{Total number of vehicles sold of the applicable weight category (i.e., either LDV + LLDTs, or HLDT + MDPVs)}$

Where:

N = The number of LDVs and LLDTs, or HLDTs and MDPVs, sold within the applicable FEL, based on vehicles counted to the point of first sale.

FEL = Family Emission Limit (grams/mile).

(n) *Certification compliance and enforcement requirements for cold temperature NMHC standards.* (1) Compliance and enforcement requirements are provided in § 86.1864-10 and § 86.1848-10(c)(8).

(2) The certificate issued for each test group requires all vehicles within that test group to meet the emission standard or FEL to which the vehicles were certified.

(3) Each manufacturer must comply with the applicable cold temperature NMHC fleet average standard on a sales-weighted average basis, at the end of each model year, using the procedure described in paragraph (m) of this section.

(4) During a phase-in year, the manufacturer must comply with the applicable cold temperature NMHC fleet average standard for the required phase-in percentage for that year as specified in § 86.1811-10(g)(3) or (4).

(5) Manufacturers must compute separate cold temperature NMHC fleet averages for LDV/LLDTs and HLDT/MDPVs. The sales-weighted cold temperature NMHC fleet averages must be compared with the applicable fleet average standard.

(6) Each manufacturer must comply on an annual basis with the fleet average standards as follows:

(i) Manufacturers must report in their annual reports to the Agency that they met the relevant corporate average standard by showing that their sales-weighted average cold temperature NMHC emissions of LDV/LLDTs and HLDT/MDPVs, as applicable, are at or below the applicable fleet average standard;

(ii) If the sales-weighted average is above the applicable fleet average standard, manufacturers must obtain and apply sufficient NMHC credits as permitted under paragraph (o)(8) of this section. A manufacturer must show via the use of credits that they have offset any exceedence of the corporate average standard. Manufacturers must also include their credit balances or deficits.

(iii) If a manufacturer fails to meet the corporate average cold temperature NMHC standard for two consecutive years, the vehicles causing the corporate average exceedence will be considered not covered by the certificate of conformity (see paragraph (o)(8) of this section). A manufacturer will be subject to penalties on an individual-vehicle basis for sale of vehicles not covered by a certificate.

(iv) EPA will review each manufacturer's sales to designate the vehicles that caused the exceedence of the corporate average standard. EPA will designate as nonconforming those vehicles in test groups with the highest certification emission values first, continuing until reaching a number of vehicles equal to the calculated number of noncomplying vehicles as determined above. In a group where only a portion of vehicles would be deemed nonconforming, EPA will determine the actual nonconforming vehicles by counting backwards from the last vehicle produced in that test group. Manufacturers will be liable for penalties for each vehicle sold that is not covered by a certificate.

(o) *Requirements for the cold temperature NMHC averaging, banking and trading (ABT) program.* (1) Manufacturers must average the cold temperature NMHC emissions of their vehicles and comply with the cold temperature NMHC fleet average corporate standard. Manufacturers may generate credits during and after the phase-in period. Manufacturers may generate credits prior to the phase-in periods as described in paragraph (o)(5) of this section. A manufacturer whose cold temperature NMHC fleet average emissions exceed the applicable standard must complete the calculation in paragraph (o)(4) of this section to determine the size of its NMHC credit deficit. A manufacturer whose cold temperature NMHC fleet average emissions are less than the applicable standard must complete the calculation in paragraph (o)(4) of this section to generate NMHC credits.

(2) There are no property rights associated with NMHC credits generated under this subpart. Credits are a limited authorization to emit the designated amount of emissions. Nothing in this part or any other provision of law should be construed to limit EPA's authority to terminate or limit this authorization through a rulemaking.

(3) Each manufacturer must comply with the reporting and recordkeeping requirements of paragraph (p) of this section for NMHC credits, including early credits. The averaging, banking and trading program is enforceable through the certificate of conformity

that allows the manufacturer to introduce any regulated vehicles into commerce.

(4) Credits are earned on the last day of the model year. Manufacturers must calculate, for a given model year, the number of credits or debits it has generated according to the following equation, rounded to the nearest 0.1 grams/mile:

$$\text{NMHC Credits or Debits} = (\text{Cold Temperature NMHC Standard} - \text{Manufacturer's Sales-Weighted Fleet Average Cold Temperature NMHC Emissions}) \times (\text{Total Number of Vehicles Sold})$$

Where:

Cold Temperature NMHC Standard = 0.3 grams/mile for LDV/LLDTs or 0.5 grams/mile for HLDT/MDPV, per § 86.1811-10(g)(2).

Manufacturer's Sales-Weighted Fleet Average Cold Temperature NMHC Emissions = average calculated according to paragraph (m) of this section.

Total Number of Vehicles Sold = Total 50-State sales based on the point of first sale.

(5) The following provisions apply for early banking:

(i) Manufacturers may certify LDV/LLDTs to the cold temperature NMHC exhaust standards in § 86.1811-10(g)(2) for model years 2008-2009 to bank credits for use in the 2010 and later model years. Manufacturers may certify HLDT/MDPVs to the cold temperature NMHC exhaust standards in § 86.1811-10(g)(2) for model years 2010-2011 to bank credits for use in the 2012 and later model years.

(ii) This process is referred to as "early banking" and the resultant credits are referred to as "early credits." To bank early credits, a manufacturer must comply with all exhaust emission standards and requirements applicable to LDV/LLDTs and/or HLDT/MDPVs. To generate early credits, a manufacturer must separately compute the sales-weighted cold temperature NMHC average of the LDV/LLDTs and HLDT/MDPVs it certifies to the exhaust requirements and separately compute credits using the calculations in paragraph (o)(4) of this section. Early HLDT/MDPV credits may not be applied to LDV/LLDTs before the 2010 model year. Early LDV/

LLDT credits may not be applied to HLDT/MDPV before the 2012 model year.

(6) NMHC credits are not subject to any discount or expiration date except as required under the deficit carryforward provisions of paragraph (o)(8) of this section. There is no discounting of unused credits. NMHC credits have unlimited lives, subject to the limitations of paragraph (o)(2) of this section.

(7) Credits may be used as follows:

(i) Credits generated and calculated according to the method in paragraph (o)(4) of this section may be used only to offset deficits accrued with respect to the standard in § 86.1811-10(g)(2). Credits may be banked and used in a future model year in which a manufacturer's average cold temperature NMHC level exceeds the applicable standard. Credits may be exchanged between the LDV/LLDT and HLDT/MDPV fleets of a given manufacturer. Credits may also be traded to another manufacturer according to the provisions in paragraph (o)(9) of this section. Before trading or carrying over credits to the next model year, a manufacturer must apply available credits to offset any credit deficit, where the deadline to offset that credit deficit has not yet passed.

(ii) The use of credits shall not be permitted to address Selective Enforcement Auditing or in-use testing failures. The enforcement of the averaging standard occurs through the vehicle's certificate of conformity. A manufacturer's certificate of conformity is conditioned upon compliance with the averaging provisions. The certificate will be void ab initio if a manufacturer fails to meet the corporate average standard and does not obtain appropriate credits to cover its shortfalls in that model year or in the subsequent model year (see deficit carryforward provision in paragraph (o)(8) of this section). Manufacturers must track their certification levels and sales unless they produce only vehicles certified to cold temperature NMHC levels below the standard and do not plan to bank credits.

(8) The following provisions apply if debits are accrued:



(i) If a manufacturer calculates that it has negative credits (also called “debits” or a “credit deficit”) for a given model year, it may carry that deficit forward into the next model year. Such a carry-forward may only occur after the manufacturer exhausts any supply of banked credits. At the end of that next model year, the deficit must be covered with an appropriate number of credits that the manufacturer generates or purchases. Any remaining deficit is subject to an enforcement action, as described in this paragraph (o)(8). Manufacturers are not permitted to have a credit deficit for two consecutive years.

(ii) If debits are not offset within the specified time period, the number of vehicles not meeting the fleet average cold temperature NMHC standards (and therefore not covered by the certificate) must be calculated by dividing the total amount of debits for the model year by the fleet average cold temperature NMHC standard applicable for the model year in which the debits were first incurred.

(iii) EPA will determine the number of vehicles for which the condition on the certificate was not satisfied by designating vehicles in those test groups with the highest certification cold temperature NMHC emission values first and continuing until reaching a number of vehicles equal to the calculated number of noncomplying vehicles as determined above. If this calculation determines that only a portion of vehicles in a test group contribute to the debit situation, then EPA will designate actual vehicles in that test group as not covered by the certificate, starting with the last vehicle produced and counting backwards.

(iv)(A) If a manufacturer ceases production of LDV/LLDTs and HLDV/MDPVs, the manufacturer continues to be responsible for offsetting any debits outstanding within the required time period. Any failure to offset the debits will be considered a violation of paragraph (o)(8)(i) of this section and may subject the manufacturer to an enforcement action for sale of vehicles not covered by a certificate, pursuant to paragraphs (o)(8)(ii) and (iii) of this section.

(B) If a manufacturer is purchased by, merges with, or otherwise combines with another manufacturer, the controlling entity is responsible for offsetting any debits outstanding within the required time period. Any failure to offset the debits will be considered a violation of paragraph (o)(8)(i) of this section and may subject the manufacturer to an enforcement action for sale of vehicles not covered by a certificate, pursuant to paragraphs (o)(8)(ii) and (iii) of this section.

(v) For purposes of calculating the statute of limitations, a violation of the requirements of paragraph (o)(8)(i) of this section, a failure to satisfy the conditions upon which a certificate(s) was issued and hence a sale of vehicles not covered by the certificate, all occur upon the expiration of the deadline for offsetting debits specified in paragraph (o)(8)(i) of this section.

(9) The following provisions apply to NMHC credit trading:

(i) EPA may reject NMHC credit trades if the involved manufacturers fail to submit the credit trade notification in the annual report. A manufacturer may not sell credits that are not available for sale pursuant to the provisions in paragraphs (o)(7)(i) of this section.

(ii) In the event of a negative credit balance resulting from a transaction that a manufacturer could not cover by the reporting deadline for the model year in which the trade occurred, both the buyer and seller are liable, except in cases involving fraud. EPA may void ab initio the certificates of conformity of all engine families participating in such a trade.

(iii) A manufacturer may only trade credits that it has generated pursuant to paragraph (o)(4) of this section or acquired from another party.

(p) *Reporting and recordkeeping.* Keep records and submit information for demonstrating compliance with the fleet average cold temperature NMHC standard as described in § 86.1862-04.

[72 FR 8567, Feb. 26, 2007, as amended at 76 FR 19874, Apr. 8, 2011; 79 FR 23736, Apr. 28, 2014]

## Environmental Protection Agency

## § 86.1865–12

### § 86.1865–12 How to comply with the fleet average CO<sub>2</sub> standards.

(a) *Applicability.* (1) Unless otherwise exempted under the provisions of paragraph (d) of this section, CO<sub>2</sub> fleet average exhaust emission standards of this subpart apply to:

- (i) 2012 and later model year passenger automobiles and light trucks.
- (ii) Heavy-duty vehicles subject to standards under § 86.1819.
- (iii) Vehicles imported by ICIs as defined in 40 CFR 85.1502.

(2) The terms “passenger automobile” and “light truck” as used in this section have the meanings given in § 86.1818–12.

(b) *Useful life requirements.* Full useful life requirements for CO<sub>2</sub> standards are defined in §§ 86.1818 and 86.1819. There is not an intermediate useful life standard for CO<sub>2</sub> emissions.

(c) *Altitude.* Greenhouse gas emission standards apply for testing at both low-altitude conditions and at high-altitude conditions, as described in §§ 86.1818 and 86.1819.

(d) *Small volume manufacturer certification procedures.* (1) *Passenger automobiles and light trucks.* Certification procedures for small volume manufacturers are provided in § 86.1838. Small businesses meeting certain criteria may be exempted from the greenhouse gas emission standards in § 86.1818 according to the provisions of § 86.1801–12(j) or (k).

(2) *Heavy-duty vehicles.* HDV manufacturers that qualify as small businesses are not subject to the Phase 1 greenhouse gas standards of this subpart as specified in § 86.1819–14(k)(5).

(e) *CO<sub>2</sub> fleet average exhaust emission standards.* The fleet average standards referred to in this section are the corporate fleet average CO<sub>2</sub> standards for passenger automobiles and light trucks set forth in § 86.1818–12(c) and (e), and for HDV in § 86.1819. Each manufacturer must comply with the applicable CO<sub>2</sub> fleet average standard on a production-weighted average basis, for each separate averaging set, at the end of each model year, using the procedure described in paragraph (j) of this section. The fleet average CO<sub>2</sub> standards applicable in a given model year are calculated separately for passenger automobiles and light trucks for each man-

ufacturer and each model year according to the provisions in § 86.1818. Calculate the HDV fleet average CO<sub>2</sub> standard in a given model year as described in § 86.1819–14(a).

(f) *In-use CO<sub>2</sub> standards.* In-use CO<sub>2</sub> exhaust emission standards are provided in § 86.1818–12(d) for passenger automobiles and light trucks and in § 86.1819–14(b) for HDV.

(g) *Durability procedures and method of determining deterioration factors (DFs).* Deterioration factors for CO<sub>2</sub> exhaust emission standards are provided in § 86.1823–08(m) for passenger automobiles and light trucks and in § 86.1819–14(d)(5) for HDV.

(h) *Vehicle test procedures.* (1) The test procedures for demonstrating compliance with CO<sub>2</sub> exhaust emission standards are described at § 86.101 and 40 CFR part 600, subpart B.

(2) Testing to determine compliance with CO<sub>2</sub> exhaust emission standards must be on a loaded vehicle weight (LVW) basis for passenger automobiles and light trucks (including MDPV), and on an adjusted loaded vehicle weight (ALVW) basis for non-MDPV heavy-duty vehicles.

(3) Testing for the purpose of providing certification data is required only at low-altitude conditions. If hardware and software emission control strategies used during low-altitude condition testing are not used similarly across all altitudes for in-use operation, the manufacturer must include a statement in the application for certification, in accordance with § 86.1844–01(d)(11), stating what the different strategies are and why they are used.

(i) *Calculating fleet average carbon-related exhaust emissions for passenger automobiles and light trucks.* (1) Manufacturers must compute separate production-weighted fleet average carbon-related exhaust emissions at the end of the model year for passenger automobiles and light trucks, using actual production, where production means vehicles produced and delivered for sale, and certifying model types to standards as defined in § 86.1818–12. The model type carbon-related exhaust emission results determined according to 40 CFR part 600, subpart F (in units

of grams per mile rounded to the nearest whole number) become the certification standard for each model type.

(2) Manufacturers must separately calculate production-weighted fleet average carbon-related exhaust emissions levels for the following averaging sets according to the provisions of 40 CFR part 600, subpart F:

(i) Passenger automobiles subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c)(2);

(ii) Light trucks subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c)(3);

(iii) Passenger automobiles subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e), if applicable; and

(iv) Light trucks subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e), if applicable.

(j) *Certification compliance and enforcement requirements for CO<sub>2</sub> exhaust emission standards.*

(1) Compliance and enforcement requirements are provided in this section and § 86.1848-10(c)(9).

(2) The certificate issued for each test group requires all model types within that test group to meet the in-use emission standards to which each model type is certified. The in-use standards for passenger automobiles and light duty trucks (including MDPV) are described in § 86.1818-12(d). The in-use standards for non-MDPV heavy-duty vehicles are described in § 86.1819-14(b).

(3) Each manufacturer must comply with the applicable CO<sub>2</sub> fleet average standard on a production-weighted average basis, at the end of each model year. Use the procedure described in paragraph (i) of this section for passenger automobiles and light trucks (including MDPV). Use the procedure described in § 86.1819-14(d)(9)(iv) for non-MDPV heavy-duty vehicles.

(4) Each manufacturer must comply on an annual basis with the fleet average standards as follows:

(i) Manufacturers must report in their annual reports to the Agency that they met the relevant corporate average standard by showing that the applicable production-weighted average CO<sub>2</sub> emission levels are at or below

the applicable fleet average standards; or

(ii) If the production-weighted average is above the applicable fleet average standard, manufacturers must obtain and apply sufficient CO<sub>2</sub> credits as authorized under paragraph (k)(8) of this section. A manufacturer must show that they have offset any exceedance of the corporate average standard via the use of credits. Manufacturers must also include their credit balances or deficits in their annual report to the Agency.

(iii) If a manufacturer fails to meet the corporate average CO<sub>2</sub> standard for four consecutive years, the vehicles causing the corporate average exceedance will be considered not covered by the certificate of conformity (*see* paragraph (k)(8) of this section). A manufacturer will be subject to penalties on an individual-vehicle basis for sale of vehicles not covered by a certificate.

(iv) EPA will review each manufacturer's production to designate the vehicles that caused the exceedance of the corporate average standard. EPA will designate as nonconforming those vehicles in test groups with the highest certification emission values first, continuing until reaching a number of vehicles equal to the calculated number of noncomplying vehicles as determined in paragraph (k)(8) of this section. In a group where only a portion of vehicles would be deemed nonconforming, EPA will determine the actual nonconforming vehicles by counting backwards from the last vehicle produced in that test group. Manufacturers will be liable for penalties for each vehicle sold that is not covered by a certificate.

(k) *Requirements for the CO<sub>2</sub> averaging, banking and trading (ABT) program.* (1) A manufacturer whose CO<sub>2</sub> fleet average emissions exceed the applicable standard must complete the calculation in paragraph (k)(4) of this section to determine the size of its CO<sub>2</sub> deficit. A manufacturer whose CO<sub>2</sub> fleet average emissions are less than the applicable standard may complete the calculation in paragraph (k)(4) of this section to generate CO<sub>2</sub> credits. In either case, the number of credits or debits must be rounded to the nearest whole number.

## Environmental Protection Agency

## § 86.1865–12

(2) There are no property rights associated with CO<sub>2</sub> credits generated under this subpart. Credits are a limited authorization to emit the designated amount of emissions. Nothing in this part or any other provision of law shall be construed to limit EPA's authority to terminate or limit this authorization through a rulemaking.

(3) Each manufacturer must comply with the reporting and recordkeeping requirements of paragraph (l) of this section for CO<sub>2</sub> credits, including early credits. The averaging, banking and trading program is enforceable as provided in paragraphs (k)(7)(ii), (k)(9)(iii), and (l)(1)(vi) of this section through the certificate of conformity that allows the manufacturer to introduce any regulated vehicles into U.S. commerce.

(4) Credits are earned on the last day of the model year. Manufacturers must calculate, for a given model year and separately for passenger automobiles, light trucks, and heavy-duty vehicles, the number of credits or debits it has generated according to the following equation rounded to the nearest megagram:

$$CO_2 \text{ Credits or Debits (Mg)} = [(CO_2 \text{ Standard} - \text{Manufacturer's Production-Weighted Fleet Average } CO_2 \text{ Emissions}) \times (\text{Total Number of Vehicles Produced}) \times (\text{Mileage})] \div 1,000,000$$

Where:

*CO<sub>2</sub> Standard* = the applicable standard for the model year as determined in § 86.1818 or § 86.1819;

*Manufacturer's Production-Weighted Fleet Average CO<sub>2</sub> Emissions* = average calculated according to paragraph (i) of this section;

*Total Number of Vehicles Produced* = the number of vehicles domestically produced plus those imported as defined in § 600.511–08 of this chapter; and

*Mileage* = useful life value (in miles) for HDV, and vehicle lifetime miles of 195,264 for passenger automobiles and 225,865 for light trucks.

(5) Determine total HDV debits and credits for a model year as described in § 86.1819–14(d)(6). Determine total passenger car and light truck debits and credits for a model year as described in this paragraph (k)(5). Total credits or debits generated in a model year, maintained and reported separately for passenger automobiles and light trucks, shall be the sum of the credits

or debits calculated in paragraph (k)(4) of this section and any of the following credits, if applicable, minus any CO<sub>2</sub>-equivalent debits for N<sub>2</sub>O and/or CH<sub>4</sub> calculated according to the provisions of § 86.1818–12(f)(4):

(i) Air conditioning leakage credits earned according to the provisions of § 86.1867–12(b).

(ii) Air conditioning efficiency credits earned according to the provisions of § 86.1868–12(c).

(iii) Off-cycle technology credits earned according to the provisions of § 86.1869–12(d).

(iv) Full size pickup truck credits earned according to the provisions of § 86.1870–12(c).

(v) Advanced technology vehicle credits earned according to the provisions of § 86.1866–12(b)(3).

(vi) CO<sub>2</sub>-equivalent debits for N<sub>2</sub>O and/or CH<sub>4</sub> accumulated according to the provisions of § 86.1818–12(f)(4).

(6) Unused CO<sub>2</sub> credits generally retain their full value through five model years after the model year in which they were generated; credits remaining at the end of the fifth model year after the model year in which they were generated may not be used to demonstrate compliance for later model years. However, in the case of model year 2017 and 2018 passenger cars and light trucks, unused CO<sub>2</sub> credits retain their full value through six model years after the year in which they were generated.

(7) Credits may be used as follows:

(i) Credits generated and calculated according to the method in paragraphs (k)(4) and (5) of this section may not be used to offset deficits other than those deficits accrued within the respective averaging set, except that credits may be transferred between the passenger automobile and light truck fleets of a given manufacturer. Credits may be banked and used in a future model year in which a manufacturer's average CO<sub>2</sub> level exceeds the applicable standard. Credits may also be traded to another manufacturer according to the provisions in paragraph (k)(8) of this section. Before trading or carrying over credits to the next model year, a manufacturer must apply available credits to offset any deficit, where the deadline to offset that credit deficit has not



yet passed. This paragraph (k)(7)(i) applies for MDPV, but not for other HDV.

(ii) The use of credits shall not change Selective Enforcement Auditing or in-use testing failures from a failure to a non-failure. The enforcement of the averaging standard occurs through the vehicle's certificate of conformity as described in paragraph (k)(8) of this section. A manufacturer's certificate of conformity is conditioned upon compliance with the averaging provisions. The certificate will be void ab initio if a manufacturer fails to meet the corporate average standard and does not obtain appropriate credits to cover its shortfalls in that model year or subsequent model years (see deficit carry-forward provisions in paragraph (k)(8) of this section).

(iii) The following provisions apply for passenger automobiles and light trucks under the Temporary Leadtime Allowance Alternative Standards:

(A) Credits generated by vehicles subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c) may only be used to offset a deficit generated by vehicles subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e).

(B) Credits generated by a passenger automobile or light truck averaging set subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e)(4)(i) or (ii) may be used to offset a deficit generated by an averaging set subject to the Temporary Leadtime Allowance Alternative Standards through the 2015 model year, except that manufacturers qualifying under the provisions of § 86.1818-12(e)(3) may use such credits to offset a deficit generated by an averaging set subject to the Temporary Leadtime Allowance Alternative Standards through the 2016 model year.

(C) Credits generated by an averaging set subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e)(4)(i) or (ii) of this section may not be used to offset a deficit generated by an averaging set subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c)(2) or (3) or otherwise transferred to an averaging set subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c)(2) or (3).

(D) Credits generated by vehicles subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e)(4)(i) or (ii) may be banked for use in a future model year (to offset a deficit generated by an averaging set subject to the Temporary Leadtime Allowance Alternative Standards). All such credits may not be used to demonstrate compliance for model year 2016 and later vehicles, except that manufacturers qualifying under the provisions of § 86.1818-12(e)(3) may use such credits to offset a deficit generated by an averaging set subject to the Temporary Leadtime Allowance Alternative Standards through the 2016 model year.

(E) A manufacturer with any vehicles subject to the Temporary Leadtime Allowance Alternative Standards specified in § 86.1818-12(e)(4)(i) or (ii) of this section in a model year in which that manufacturer also generates credits with vehicles subject to the fleet average CO<sub>2</sub> standards specified in § 86.1818-12(c) may not trade or bank credits earned against the fleet average standards in § 86.1818-12(c) for use in a future model year.

(iv) Credits generated in the 2017 through 2020 model years under the provisions of § 86.1818-12(e)(3)(ii) may not be traded or otherwise provided to another manufacturer.

(v) Credits generated under any alternative fleet average standards approved under § 86.1818-12(g) may not be traded or otherwise provided to another manufacturer.

(8) The following provisions apply if a manufacturer calculates that it has negative credits (also called "debits" or a "credit deficit") for a given model year:

(i) The manufacturer may carry the credit deficit forward into the next three model years. Such a carry-forward may only occur after the manufacturer exhausts any supply of banked credits. The deficit must be covered with an appropriate number of credits that the manufacturer generates or purchases by the end of the third model year. Any remaining deficit is subject to a voiding of the certificate ab initio, as described in this paragraph (k)(8). Manufacturers are not permitted to

have a credit deficit for four consecutive years.

(ii) If the credit deficit is not offset within the specified time period, the number of vehicles not meeting the fleet average CO<sub>2</sub> standards (and therefore not covered by the certificate) must be calculated.

(A) Determine the negative credits for the noncompliant vehicle category by multiplying the total megagram deficit by 1,000,000 and then dividing by the mileage specified in paragraph (k)(4) of this section.

(B) Divide the result by the fleet average standard applicable to the model year in which the debits were first incurred and round to the nearest whole number to determine the number of vehicles not meeting the fleet average CO<sub>2</sub> standards.

(iii) EPA will determine the vehicles not covered by a certificate because the condition on the certificate was not satisfied by designating vehicles in those test groups with the highest carbon-related exhaust emission values first and continuing until reaching a number of vehicles equal to the calculated number of non-complying vehicles as determined in this paragraph (k)(8). The same approach applies for HDV, except that EPA will make these designations by ranking test groups based on CO<sub>2</sub> emission values. If these calculations determines that only a portion of vehicles in a test group contribute to the debit situation, then EPA will designate actual vehicles in that test group as not covered by the certificate, starting with the last vehicle produced and counting backwards.

(iv)(A) If a manufacturer ceases production of passenger automobiles, light trucks, or heavy-duty vehicles, the manufacturer continues to be responsible for offsetting any debits outstanding within the required time period. Any failure to offset the debits will be considered a violation of paragraph (k)(8)(i) of this section and may subject the manufacturer to an enforcement action for sale of vehicles not covered by a certificate, pursuant to paragraphs (k)(8)(ii) and (iii) of this section.

(B) If a manufacturer is purchased by, merges with, or otherwise combines with another manufacturer, the con-

trolling entity is responsible for offsetting any debits outstanding within the required time period. Any failure to offset the debits will be considered a violation of paragraph (k)(8)(i) of this section and may subject the manufacturer to an enforcement action for sale of vehicles not covered by a certificate, pursuant to paragraphs (k)(8)(ii) and (iii) of this section.

(v) For purposes of calculating the statute of limitations, a violation of the requirements of paragraph (k)(8)(i) of this section, a failure to satisfy the conditions upon which a certificate(s) was issued and hence a sale of vehicles not covered by the certificate, all occur upon the expiration of the deadline for offsetting debits specified in paragraph (k)(8)(i) of this section.

(9) The following provisions apply to CO<sub>2</sub> credit trading:

(i) EPA may reject CO<sub>2</sub> credit trades if the involved manufacturers fail to submit the credit trade notification in the annual report.

(ii) A manufacturer may not sell credits that are no longer valid for demonstrating compliance based on the model years of the subject vehicles, as specified in paragraph (k)(6) of this section.

(iii) In the event of a negative credit balance resulting from a transaction, both the buyer and seller are liable for the credit shortfall. EPA may void ab initio the certificates of conformity of all test groups that generate or use credits in such a trade.

(iv)(A) If a manufacturer trades a credit that it has not generated pursuant to this paragraph (k) or acquired from another party, the manufacturer will be considered to have generated a debit in the model year that the manufacturer traded the credit. The manufacturer must offset such debits by the deadline for the annual report for that same model year.

(B) Failure to offset the debits within the required time period will be considered a failure to satisfy the conditions upon which the certificate(s) was issued and will be addressed pursuant to paragraph (k)(8) of this section.

(v) A manufacturer may only trade credits that it has generated pursuant to paragraphs (k)(4) and (5) of this section or acquired from another party.

(1) *Maintenance of records and submittal of information relevant to compliance with fleet average CO<sub>2</sub> standards—*

(1) *Maintenance of records.* (i) Manufacturers producing any light-duty vehicles, light-duty trucks, medium-duty passenger vehicles, or other heavy-duty vehicles subject to the provisions in this subpart must establish, maintain, and retain all the following information in adequately organized records for each model year:

(A) Model year.

(B) Applicable fleet average CO<sub>2</sub> standards for each averaging set as defined in paragraph (i) of this section.

(C) The calculated fleet average CO<sub>2</sub> value for each averaging set as defined in paragraph (i) of this section.

(D) All values used in calculating the fleet average CO<sub>2</sub> values.

(ii) Manufacturers must establish, maintain, and retain all the following information in adequately organized records for each vehicle produced that is subject to the provisions in this subpart:

(A) Model year.

(B) Applicable fleet average CO<sub>2</sub> standard.

(C) EPA test group.

(D) Assembly plant.

(E) Vehicle identification number.

(F) Carbon-related exhaust emission standard (automobile and light truck only), N<sub>2</sub>O emission standard, and CH<sub>4</sub> emission standard to which the vehicle is certified.

(G) In-use carbon-related exhaust emission standard for passenger automobiles and light truck, and in-use CO<sub>2</sub> standard for HDV.

(H) Information on the point of first sale, including the purchaser, city, and state.

(iii) Manufacturers must retain all required records for a period of eight years from the due date for the annual report. Records may be stored in any format and on any media, as long as manufacturers can promptly send EPA organized written records in English if requested by the Administrator. Manufacturers must keep records readily available as EPA may review them at any time.

(iv) The Administrator may require the manufacturer to retain additional

records or submit information not specifically required by this section.

(v) Pursuant to a request made by the Administrator, the manufacturer must submit to the Administrator the information that the manufacturer is required to retain.

(vi) EPA may void ab initio a certificate of conformity for vehicles certified to emission standards as set forth or otherwise referenced in this subpart for which the manufacturer fails to retain the records required in this section or to provide such information to the Administrator upon request, or to submit the reports required in this section in the specified time period.

(2) *Reporting.* (i) Each manufacturer must submit an annual report. The annual report must contain for each applicable CO<sub>2</sub> standard, the calculated fleet average CO<sub>2</sub> value, all values required to calculate the CO<sub>2</sub> emissions value, the number of credits generated or debits incurred, all the values required to calculate the credits or debits, and the resulting balance of credits or debits. For each applicable alternative N<sub>2</sub>O and/or CH<sub>4</sub> standard selected under the provisions of § 86.1818-12(f)(3) for passenger automobiles and light trucks (or § 86.1819-14(c) for HDV), the report must contain the CO<sub>2</sub>-equivalent debits for N<sub>2</sub>O and/or CH<sub>4</sub> calculated according to § 86.1818-12(f)(4) (or § 86.1819-14(c) for HDV) for each test group and all values required to calculate the number of debits incurred.

(ii) For each applicable fleet average CO<sub>2</sub> standard, the annual report must also include documentation on all credit transactions the manufacturer has engaged in since those included in the last report. Information for each transaction must include all of the following:

(A) Name of credit provider.

(B) Name of credit recipient.

(C) Date the trade occurred.

(D) Quantity of credits traded in megagrams.

(E) Model year in which the credits were earned.

(iii) Manufacturers calculating air conditioning leakage and/or efficiency credits under paragraph § 86.1871-12(b) shall include the following information for each model year and separately for

passenger automobiles and light trucks and for each air conditioning system used to generate credits:

(A) A description of the air conditioning system.

(B) The leakage credit value and all the information required to determine this value.

(C) The total credits earned for each averaging set, model year, and region, as applicable.

(iv) Manufacturers calculating advanced technology vehicle credits under paragraph § 86.1871–12(c) shall include the following information for each model year and separately for passenger automobiles and light trucks:

(A) The number of each model type of eligible vehicle sold.

(B) The cumulative model year production of eligible vehicles starting with the 2009 model year.

(C) The carbon-related exhaust emission value by model type and model year.

(v) Manufacturers calculating off-cycle technology credits under paragraph § 86.1871–12(d) shall include, for each model year and separately for passenger automobiles and light trucks, all test results and data required for calculating such credits.

(vi) Unless a manufacturer reports the data required by this section in the annual production report required under § 86.1844–01(e) or the annual report required under § 600.512–12 of this chapter, a manufacturer must submit an annual report for each model year after production ends for all affected vehicles produced by the manufacturer subject to the provisions of this subpart and no later than May 1 of the calendar year following the given model year. Annual reports must be submitted to: Director, Compliance Division, U.S. Environmental Protection Agency, 2000 Traverwood Dr., Ann Arbor, Michigan 48105.

(vii) Failure by a manufacturer to submit the annual report in the specified time period for all vehicles subject to the provisions in this section is a violation of section 203(a)(1) of the Clean Air Act (42 U.S.C. 7522 (a)(1)) for each applicable vehicle produced by that manufacturer.

(viii) If EPA or the manufacturer determines that a reporting error oc-

curred on an annual report previously submitted to EPA, the manufacturer's credit or debit calculations will be recalculated. EPA may void erroneous credits, unless traded, and will adjust erroneous debits. In the case of traded erroneous credits, EPA must adjust the selling manufacturer's credit balance to reflect the sale of such credits and any resulting credit deficit.

(3) *Notice of opportunity for hearing.* Any voiding of the certificate under paragraph (1)(1)(vi) of this section will be made only after EPA has offered the affected manufacturer an opportunity for a hearing conducted in accordance with 40 CFR part 1068, subpart G, and, if a manufacturer requests such a hearing, will be made only after an initial decision by the Presiding Officer.

[81 FR 73992, Oct. 25, 2016, as amended at 85 FR 22620, Apr. 23, 2020; 86 FR 74524, Dec. 30, 2021]

#### **§ 86.1866–12 CO<sub>2</sub> credits for advanced technology vehicles.**

This section describes how to apply CO<sub>2</sub> credits for advanced technology passenger automobiles and light trucks (including MDPV). This section does not apply for heavy-duty vehicles that are not MDPV.

(a) Electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles, as those terms are defined in § 86.1803–01, that are certified and produced for U.S. sale, where “U.S.” means the states and territories of the United States, in the 2012 through 2025 model years may use a value of zero (0) grams/mile of CO<sub>2</sub> to represent the proportion of electric operation of a vehicle that is derived from electricity that is generated from sources that are not on-board the vehicle, as specified by this paragraph (a).

(1) Model years 2012 through 2016: The use of zero (0) grams/mile CO<sub>2</sub> is limited to the first 200,000 combined electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles produced for U.S. sale, where “U.S.” means the states and territories of the United States, in the 2012 through 2016 model years, except that a manufacturer that produces 25,000 or more such vehicles for U.S. sale in the 2012 model year shall be subject to a limitation on the use of zero (0) grams/mile CO<sub>2</sub> to



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passenger automobiles and light trucks and for each air conditioning system used to generate credits:

(A) A description of the air conditioning system.

(B) The leakage credit value and all the information required to determine this value.

(C) The total credits earned for each averaging set, model year, and region, as applicable.

(iv) Manufacturers calculating advanced technology vehicle credits under paragraph § 86.1871–12(c) shall include the following information for each model year and separately for passenger automobiles and light trucks:

(A) The number of each model type of eligible vehicle sold.

(B) The cumulative model year production of eligible vehicles starting with the 2009 model year.

(C) The carbon-related exhaust emission value by model type and model year.

(v) Manufacturers calculating off-cycle technology credits under paragraph § 86.1871–12(d) shall include, for each model year and separately for passenger automobiles and light trucks, all test results and data required for calculating such credits.

(vi) Unless a manufacturer reports the data required by this section in the annual production report required under § 86.1844–01(e) or the annual report required under § 600.512–12 of this chapter, a manufacturer must submit an annual report for each model year after production ends for all affected vehicles produced by the manufacturer subject to the provisions of this subpart and no later than May 1 of the calendar year following the given model year. Annual reports must be submitted to: Director, Compliance Division, U.S. Environmental Protection Agency, 2000 Traverwood Dr., Ann Arbor, Michigan 48105.

(vii) Failure by a manufacturer to submit the annual report in the specified time period for all vehicles subject to the provisions in this section is a violation of section 203(a)(1) of the Clean Air Act (42 U.S.C. 7522 (a)(1)) for each applicable vehicle produced by that manufacturer.

(viii) If EPA or the manufacturer determines that a reporting error oc-

curred on an annual report previously submitted to EPA, the manufacturer's credit or debit calculations will be recalculated. EPA may void erroneous credits, unless traded, and will adjust erroneous debits. In the case of traded erroneous credits, EPA must adjust the selling manufacturer's credit balance to reflect the sale of such credits and any resulting credit deficit.

(3) *Notice of opportunity for hearing.* Any voiding of the certificate under paragraph (1)(1)(vi) of this section will be made only after EPA has offered the affected manufacturer an opportunity for a hearing conducted in accordance with 40 CFR part 1068, subpart G, and, if a manufacturer requests such a hearing, will be made only after an initial decision by the Presiding Officer.

[81 FR 73992, Oct. 25, 2016, as amended at 85 FR 22620, Apr. 23, 2020; 86 FR 74524, Dec. 30, 2021]

### § 86.1866–12 CO<sub>2</sub> credits for advanced technology vehicles.

This section describes how to apply CO<sub>2</sub> credits for advanced technology passenger automobiles and light trucks (including MDPV). This section does not apply for heavy-duty vehicles that are not MDPV.

(a) Electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles, as those terms are defined in § 86.1803–01, that are certified and produced for U.S. sale, where “U.S.” means the states and territories of the United States, in the 2012 through 2025 model years may use a value of zero (0) grams/mile of CO<sub>2</sub> to represent the proportion of electric operation of a vehicle that is derived from electricity that is generated from sources that are not on-board the vehicle, as specified by this paragraph (a).

(1) Model years 2012 through 2016: The use of zero (0) grams/mile CO<sub>2</sub> is limited to the first 200,000 combined electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles produced for U.S. sale, where “U.S.” means the states and territories of the United States, in the 2012 through 2016 model years, except that a manufacturer that produces 25,000 or more such vehicles for U.S. sale in the 2012 model year shall be subject to a limitation on the use of zero (0) grams/mile CO<sub>2</sub> to

the first 300,000 combined electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles produced and delivered for sale by a manufacturer in the 2012 through 2016 model years.

(2) Model years 2017 through 2026: For electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles produced for U.S. sale, where “U.S.” means the states and territories of the United States, in the 2017 through 2026 model years, such use of zero (0) grams/mile CO<sub>2</sub> is unrestricted.

(b) For electric vehicles, plug-in hybrid electric vehicles, fuel cell vehicles, dedicated natural gas vehicles, and dual-fuel natural gas vehicles as those

terms are defined in § 86.1803–01, that are certified and produced for U.S. sale in the specified model years and that meet the additional specifications in this section, the manufacturer may use the production multipliers in this paragraph (b) when determining additional credits for advanced technology vehicles. Full size pickup trucks eligible for and using a production multiplier are not eligible for the strong hybrid-based credits described in § 86.1870–12(a)(2) or the performance-based credits described in § 86.1870–12(b).

(1) The following production multipliers apply for model year 2017 through 2025 vehicles:

TABLE 1 TO PARAGRAPH (b)(1)

Model year	Electric vehicles and fuel cell vehicles	Plug-in hybrid electric vehicles	Dedicated and dual-fuel natural gas vehicles
2017 .....	2.0	1.6	1.6
2018 .....	2.0	1.6	1.6
2019 .....	2.0	1.6	1.6
2020 .....	1.75	1.45	1.45
2021 .....	1.5	1.3	1.3
2022 .....			2.0
2023–2024 .....	1.5	1.3	

(2) The minimum all-electric driving range that a plug-in hybrid electric vehicle must have in order to qualify for use of a production multiplier is 10.2 miles on its nominal storage capacity of electricity when operated on the highway fuel economy test cycle. Alternatively, a plug-in hybrid electric vehicle may qualify for use of a production multiplier by having an equivalent all-electric driving range greater than or equal to 10.2 miles during its actual charge-depleting range as measured on the highway fuel economy test cycle and tested according to the requirements of SAE J1711 (incorporated by reference in § 86.1). The equivalent all-electric range of a PHEV is determined from the following formula:

$$EAER = R_{CDA} \times (CO_{2CS} - CO_{2CD}/CO_{2CS})$$

Where:

EAER = the equivalent all-electric range attributed to charge-depleting operation of a plug-in hybrid electric vehicle on the highway fuel economy test cycle.

R<sub>CDA</sub> = The actual charge-depleting range determined according to SAE J1711 (incorporated by reference in § 86.1).

CO<sub>2CS</sub> = The charge-sustaining CO<sub>2</sub> emissions in grams per mile on the highway fuel economy test determined according to SAE J1711 (incorporated by reference in § 86.1).

CO<sub>2CD</sub> = The charge-depleting CO<sub>2</sub> emissions in grams per mile on the highway fuel economy test determined according to SAE J1711 (incorporated by reference in § 86.1).

(3) The actual production of qualifying vehicles may be multiplied by the applicable value according to the model year, and the result, rounded to the nearest whole number, may be used to represent the production of qualifying vehicles when calculating average carbon-related exhaust emissions under § 600.512 of this chapter.

(c) Calculating multiplier-based credits for advanced technology vehicles: This paragraph (c) describes the method for calculating credits using the production multipliers in paragraph (b) of this section. Production multipliers must be used according to this paragraph (c) and must not be used in calculating fleet average carbon-related exhaust emissions under 40 CFR part

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Where:

*annual credits* = a manufacturer's total multiplier-based credits in a given model year from all passenger automobiles and light trucks as calculated under this paragraph (c).

(iii) Calculate a cumulative g/mile equivalent value for the multiplier-based credits in 2022 through 2025 by adding the annual g/mile equivalent values calculated under paragraph (c)(3)(ii) of this section.

(iv) The cumulative g/mile equivalent value may not exceed 10.0 in any year.

(v) The annual credit report must include for every model year from 2022 through 2025, as applicable, the calculated values for the nominal annual credit cap in Mg and the cumulative g/mile equivalent value.

[77 FR 63164, Oct. 15, 2012, as amended at 81 FR 73996, Oct. 25, 2016; 85 FR 22620, Apr. 23, 2020; 85 FR 25269, Apr. 30, 2020; 86 FR 74524, Dec. 30, 2021]

### § 86.1867–12 CO<sub>2</sub> credits for reducing leakage of air conditioning refrigerant.

Manufacturers may generate credits applicable to the CO<sub>2</sub> fleet average program described in § 86.1865–12 by implementing specific air conditioning system technologies designed to reduce air conditioning refrigerant leakage over the useful life of their passenger automobiles and/or light trucks (including MDPV); only the provisions of paragraph (a) of this section apply for non-MDPV heavy-duty vehicles. Credits shall be calculated according to this

section for each air conditioning system that the manufacturer is using to generate CO<sub>2</sub> credits. Manufacturers may also generate early air conditioning refrigerant leakage credits under this section for the 2009 through 2011 model years according to the provisions of § 86.1871–12(b).

(a) The manufacturer shall calculate an annual rate of refrigerant leakage from an air conditioning system in grams per year according to the procedures specified in SAE J2727 (incorporated by reference in § 86.1). In doing so, the refrigerant permeation rates for hoses shall be determined using the procedures specified in SAE J2064 (incorporated by reference in § 86.1). The annual rate of refrigerant leakage from an air conditioning system shall be rounded to the nearest tenth of a gram per year. The procedures of SAE J2727 may be used to determine leakage rates for HFC–134a and HFO–1234yf; manufacturers should contact EPA regarding procedures for other refrigerants. The annual rate of refrigerant leakage from an air conditioning system shall be rounded to the nearest tenth of a gram per year.

(b) The CO<sub>2</sub>-equivalent gram per mile leakage reduction used to calculate the total leakage credits generated by an air conditioning system shall be determined according to this paragraph (b), separately for passenger automobiles and light trucks, and rounded to the nearest tenth of a gram per mile:

(1) Passenger automobile leakage credit for an air conditioning system:

$$\text{Leakage Credit} = \text{MaxCredit} \times \left[ 1 - \left( \frac{\text{LeakScore}}{16.6} \right) \times \left( \frac{\text{GWP}_{\text{REF}}}{1430} \right) \right] - \text{HiLeakDis}$$

Where:

MaxCredit is 12.6 (grams CO<sub>2</sub>-equivalent/mile) for air conditioning systems using HFC–134a, and 13.8 (grams CO<sub>2</sub>-equivalent/mile) for air conditioning systems using a refrigerant with a lower global warming potential.

LeakScore means the annual refrigerant leakage rate determined according to the procedures in SAE J2727 (incorporated by reference in § 86.1), where the refrigerant permeation rates for hoses shall be determined using the procedures specified in SAE J2064

(incorporated by reference in § 86.1). If the calculated rate is less than 8.3 grams/year (or 4.1 grams/year for systems using only electric compressors), the rate for the purpose of this formula shall be 8.3 grams/year (or 4.1 grams/year for systems using only electric compressors).

GWP<sub>REF</sub> means the global warming potential of the refrigerant as indicated in paragraph (e) of this section or as otherwise determined by the Administrator;

HiLeakDis means the high leak disincentive, which is zero for model years 2012 through 2016, and for 2017 and later model

years is determined using the following equation, except that if  $GWP_{REF}$  is greater than 150 or if the calculated result of the equation is less than zero,  $HiLeakDis$  shall

be set equal to zero, or if the calculated result of the equation is greater than 1.8 g/mi,  $HiLeakDis$  shall be set to 1.8 g/mi:

$$HiLeakDis = 1.8 \times \left( \frac{(LeakScore - LeakThreshold)}{3.3} \right)$$

Where,

$LeakThreshold = 11.0$  for air conditioning systems with a refrigerant capacity less than or equal to 733 grams; or

$LeakThreshold = [Refrigerant\ Capacity \times 0.015]$  for air conditioning systems with a refrigerant capacity greater than 733

grams, where  $RefrigerantCapacity$  is the maximum refrigerant capacity specified for the air conditioning system, in grams.

(2) Light truck leakage credit for an air conditioning system:

$$Leakage\ Credit = MaxCredit \times \left[ 1 - \left( \frac{LeakScore}{20.7} \right) \times \left( \frac{GWP_{REF}}{1430} \right) \right] - HiLeakDis$$

Where:

$MaxCredit$  is 15.6 (grams  $CO_2$ -equivalent/mile) for air conditioning systems using HFC-134a, and 17.2 (grams  $CO_2$ -equivalent/mile) for air conditioning systems using a refrigerant with a lower global warming potential.

$LeakScore$  means the annual refrigerant leakage rate determined according to the provisions of SAE J2727 (incorporated by reference in § 86.1), where the refrigerant permeation rates for hoses shall be determined using the procedures specified in SAE J2064 (incorporated by reference in § 86.1). If the calculated rate is less than 10.4 grams/year (or 5.2 grams/year for systems using only electric compressors), the rate for the purpose of this formula

shall be 10.4 grams/year (or 5.2 grams/year for systems using only electric compressors).

$GWP_{REF}$  means the global warming potential of the refrigerant as indicated in paragraph (e) of this section or as otherwise determined by the Administrator;

$HiLeakDis$  means the high leak disincentive, which is zero for model years 2012 through 2016, and for 2017 and later model years is determined using the following equation, except that if  $GWP_{REF}$  is greater than 150 or if the calculated result of the equation is less than zero,  $HiLeakDis$  shall be set equal to zero, or if the calculated result of the equation is greater than 2.1 g/mi,  $HiLeakDis$  shall be set to 2.1 g/mi:

$$HiLeakDis = 2.1 \times \left( \frac{(LeakScore - LeakThreshold)}{3.3} \right)$$

Where:

$LeakThreshold = 11.0$  for air conditioning systems with a refrigerant capacity less than or equal to 733 grams; or

$LeakThreshold = [Refrigerant\ Capacity \times 0.015]$  for air conditioning systems with a refrigerant capacity greater than 733 grams, where  $RefrigerantCapacity$  is the maximum refrigerant capacity specified for the air conditioning system, in grams.

(c) The total leakage reduction credits generated by the air conditioning system shall be calculated separately for passenger automobiles and light trucks according to the following formula:

$$Total\ Credits\ (Megagrams) = (Leakage \times Production \times VLM) \div 1,000,000$$

Where:

$Leakage$  = the  $CO_2$ -equivalent leakage credit value in grams per mile determined in



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paragraph (b)(1) or (b)(2) of this section, whichever is applicable.

Production = The total number of passenger automobiles or light trucks, whichever is applicable, produced with the air conditioning system to which to the leakage credit value from paragraph (b)(1) or (b)(2) of this section applies.

VLM = vehicle lifetime miles, which for passenger automobiles shall be 195,264 and for light trucks shall be 225,865.

(d) The results of paragraph (c) of this section, rounded to the nearest whole number, shall be included in the manufacturer's credit/debit totals calculated in § 86.1865-12(k)(5).

(e) The following values for refrigerant global warming potential ( $GWP_{REF}$ ), or alternative values as determined by the Administrator, shall be used in the calculations of this section. The Administrator will determine values for refrigerants not included in this paragraph (e) upon request by a manufacturer.

- (1) For HFC-134a,  $GWP_{REF} = 1430$ ;
- (2) For HFC-152a,  $GWP_{REF} = 124$ ;
- (3) For HFO-1234yf,  $GWP_{REF} = 4$ ;
- (4) For  $CO_2$ ,  $GWP_{REF} = 1$ .

[77 FR 63165, Oct. 15, 2012, as amended at 81 FR 73996, Oct. 25, 2016]

### § 86.1868-12 $CO_2$ credits for improving the efficiency of air conditioning systems.

Manufacturers may generate credits applicable to the  $CO_2$  fleet average program described in § 86.1865-12 by implementing specific air conditioning sys-

tem technologies designed to reduce air conditioning-related  $CO_2$  emissions over the useful life of their passenger automobiles and/or light trucks (including MDPV). The provisions of this section do not apply for non-MDPV heavy-duty vehicles. Credits shall be calculated according to this section for each air conditioning system that the manufacturer is using to generate  $CO_2$  credits. Manufacturers may also generate early air conditioning efficiency credits under this section for the 2009 through 2011 model years according to the provisions of § 86.1871-12(b). For model years 2012 and 2013 the manufacturer may determine air conditioning efficiency credits using the requirements in paragraphs (a) through (d) of this section. For model years 2014 through 2016 the eligibility requirements specified in either paragraph (e) or (f) of this section must be met before an air conditioning system is allowed to generate credits. For model years 2017 through 2019 the eligibility requirements specified in paragraph (f) of this section must be met before an air conditioning system is allowed to generate credits. For model years 2020 and later the eligibility requirements specified in paragraph (g) of this section must be met before an air conditioning system is allowed to generate credits.

(a)(1) 2012 through 2016 model year air conditioning efficiency credits are available for the following technologies in the gram per mile amounts indicated in the following table:

Air conditioning technology	Credit value (g/mi)
Reduced reheat, with externally-controlled, variable-displacement compressor (e.g. a compressor that controls displacement based on temperature setpoint and/or cooling demand of the air conditioning system control settings inside the passenger compartment). . . . .	1.7
Reduced reheat, with externally-controlled, fixed-displacement or pneumatic variable displacement compressor (e.g. a compressor that controls displacement based on conditions within, or internal to, the air conditioning system, such as head pressure, suction pressure, or evaporator outlet temperature). . . . .	1.1
Default to recirculated air with closed-loop control of the air supply (sensor feedback to control interior air quality) whenever the ambient temperature is 75 °F or higher: Air conditioning systems that operated with closed-loop control of the air supply at different temperatures may receive credits by submitting an engineering analysis to the Administrator for approval. . . . .	1.7
Default to recirculated air with open-loop control air supply (no sensor feedback) whenever the ambient temperature is 75 °F or higher: Air conditioning systems that operate with open-loop control of the air supply at different temperatures may receive credits by submitting an engineering analysis to the Administrator for approval. . . . .	1.1
Blower motor controls which limit wasted electrical energy (e.g. pulse width modulated power controller). . . . .	0.9
Internal heat exchanger (e.g. a device that transfers heat from the high-pressure, liquid-phase refrigerant entering the evaporator to the low-pressure, gas-phase refrigerant exiting the evaporator). . . . .	1.1
Improved condensers and/or evaporators with system analysis on the component(s) indicating a coefficient of performance improvement for the system of greater than 10% when compared to previous industry standard designs). . . . .	1.1

## § 600.009

## 40 CFR Ch. I (7–1–24 Edition)

### § 600.009 Hearing on acceptance of test data.

(a) The manufacturer may request a hearing on the Administrator's decision if the Administrator rejects any of the following:

(1) The use of a manufacturer's fuel economy data vehicle, in accordance with § 600.008(e) or (g), or

(2) The use of fuel economy data, in accordance with § 600.008(c), or (f), or

(3) The determination of a vehicle configuration, in accordance with § 600.206(a), or

(4) The identification of a car line, in accordance with § 600.002, or

(5) The fuel economy label values determined by the manufacturer under § 600.312–08(a), then:

(b) The request for a hearing must be filed in writing within 30 days after being notified of the Administrator's decision. The request must be signed by an authorized representative of the manufacturer and include a statement specifying the manufacturer's objections to the Administrator's determinations, with data in support of such objection.

(c) If, after the review of the request and supporting data, the Administrator finds that the request raises one or more substantial factual issues, the Administrator shall provide the manufacturer with a hearing in accordance with the provisions of 40 CFR part 1068, subpart G.

(d) A manufacturer's use of any fuel economy data which the manufacturer challenges pursuant to this section shall not constitute final acceptance by the manufacturer nor prejudice the manufacturer in the exercise of any appeal pursuant to this section challenging such fuel economy data.

[76 FR 39530, July 6, 2011]

### § 600.010 Vehicle test requirements and minimum data requirements.

(a) Unless otherwise exempted from specific emission compliance requirements, for each certification vehicle defined in this part, and for each vehicle tested according to the emission test procedures in part 86 of this chapter for addition of a model after certification or approval of a running change (§ 86.1842 of this chapter, as applicable):

(1) The manufacturer shall generate FTP fuel economy data by testing according to the applicable procedures.

(2) The manufacturer shall generate highway fuel economy data by:

(i) Testing according to applicable procedures, or

(ii) Using an analytical technique, as described in § 600.006(e).

(3) The manufacturer shall generate US06 fuel economy data by testing according to the applicable procedures. Alternate fueled vehicles or dual fueled vehicles operating on alternate fuel may optionally generate this data using the alternate fuel.

(4) The manufacturer shall generate SC03 fuel economy data by testing according to the applicable procedures. Alternate fueled vehicles or dual fueled vehicles operating on alternate fuel may optionally generate this data using the alternate fuel.

(5) The manufacturer shall generate cold temperature FTP fuel economy data by testing according to the applicable procedures. Alternate fueled vehicles or dual fueled vehicles operating on alternate fuel may optionally generate this data using the alternate fuel.

(6) The data generated in paragraphs (a)(1) through (5) of this section, shall be submitted to the Administrator in combination with other data for the vehicle required to be submitted in part 86 of this chapter.

(b) For each fuel economy data vehicle:

(1) The manufacturer shall generate FTP and HFET fuel economy data by:

(i) Testing according to applicable procedures, or

(ii) Use of an analytical technique as described in § 600.006(e), in addition to testing (e.g., city fuel economy data by testing, highway fuel economy data by analytical technique).

(2) The data generated shall be submitted to the Administrator according to the procedures in § 600.006.

(c) *Minimum data requirements for labeling.* (1) In order to establish fuel economy label values under § 600.301, the manufacturer shall use only test data accepted in accordance with § 600.008 meeting the minimum coverage of:

(i) Data required for emission certification under §§ 86.1828 and 86.1842 of this chapter.

(ii)(A) FTP and HFET data from the highest projected model year sales subconfiguration within the highest projected model year sales configuration for each base level, and

(B) If required under § 600.115, for 2011 and later model year vehicles, US06, SC03 and cold temperature FTP data from the highest projected model year sales subconfiguration within the highest projected model year sales configuration for each base level. Manufacturers may optionally generate this data for any 2008 through 2010 model years, and, 2011 and later model year vehicles, if not otherwise required.

(iii) For additional model types established under § 600.208–08(a)(2), § 600.208–12(a)(2) § 600.209–08(a)(2), or § 600.209–12(a)(2) FTP and HFET data, and if required under § 600.115, US06, SC03 and Cold temperature FTP data from each subconfiguration included within the model type.

(2) For the purpose of recalculating fuel economy label values as required under § 600.314–08(b), the manufacturer shall submit data required under § 600.507.

(d) *Minimum data requirements for the manufacturer's average fuel economy and average carbon-related exhaust emissions.* For the purpose of calculating the manufacturer's average fuel economy and average carbon-related exhaust emissions under § 600.510, the manufacturer shall submit FTP (city) and HFET (highway) test data representing at least 90 percent of the manufacturer's actual model year production, by configuration, for each category identified for calculation under § 600.510–08(a) or § 600.510–12(a)(1).

[71 FR 77932, Dec. 27, 2006, as amended at 74 FR 61549, Nov. 25, 2009; 75 FR 25703, May 7, 2010. Redesignated and amended at 76 FR 39524, 39530, July 6, 2011]

#### § 600.011 Incorporation by reference.

Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, EPA must publish a document in

the FEDERAL REGISTER and the material must be available to the public. All approved incorporation by reference (IBR) material is available for inspection at EPA and at the National Archives and Records Administration (NARA). Contact EPA at: U.S. EPA, Air and Radiation Docket Center, WJC West Building, Room 3334, 1301 Constitution Ave. NW, Washington, DC 20004; [www.epa.gov/dockets](http://www.epa.gov/dockets); (202) 202–1744. For information on inspecting this material at NARA, visit [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov). The material may be obtained from the following sources:

(a) *ASTM International (ASTM).* ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959; (610) 832–9585; [www.astm.org](http://www.astm.org).

(1) ASTM D86–23, Standard Test Method for Distillation of Petroleum Products and Liquid Fuels at Atmospheric Pressure; Approved March 1, 2023; IBR approved for § 600.113–12(f).

(2) ASTM D975–13a, Standard Specification for Diesel Fuel Oils, Approved December 1, 2013; IBR approved for § 600.107–08(b).

(3) ASTM D1298–12b, Standard Test Method for Density, Relative Density, or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method, Approved June 1, 2012; IBR approved for §§ 600.113–12(f); 600.510–12(g).

(4) ASTM D1319–20a, Standard Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption, Approved August 1, 2020; IBR approved for § 600.113–12(f).

(5) ASTM D1945–03 (Reapproved 2010), Standard Test Method for Analysis of Natural Gas By Gas Chromatography, Approved January 1, 2010; IBR approved for § 600.113–12(f) and (k).

(6) ASTM D3338/D3338M–20a, Standard Test Method for Estimation of Net Heat of Combustion of Aviation Fuels, Approved December 1, 2020; IBR approved for § 600.113–12(f).

(7) ASTM D3343–22, Standard Test Method for Estimation of Hydrogen Content of Aviation Fuels, Approved November 1, 2022; IBR approved for § 600.113–12(f).

the United States a new tractor subject to this standard is a violation of 40 CFR 1068.101(a)(1) unless the auxiliary power unit has a valid certificate of conformity and the required label showing that it meets the PM standard of this paragraph (g)(2).

(3) See §1037.660(e) for requirements that apply for diesel APUs in model year 2020 and earlier tractors.

[81 FR 74048, Oct. 25, 2016, as amended at 86 FR 34459, June 29, 2021; 88 FR 4637, Jan. 24, 2023; 89 FR 29770, Apr. 22, 2024; 89 FR 51237, June 17, 2024]

**§ 1037.115 Other requirements.**

Vehicles required to meet the emission standards of this part must meet the following additional requirements, except as noted elsewhere in this part:

(a) *Adjustable parameters.* Vehicles that have adjustable parameters must meet all the requirements of this part for any adjustment in the practically adjustable range. We may require that you set adjustable parameters to any specification within the practically adjustable range during any testing. See 40 CFR 1068.50 for general provisions related to adjustable parameters. You must ensure safe vehicle operation throughout the practically adjustable range of each adjustable parameter, including consideration of production tolerances. Note that adjustable roof fairings are deemed not to be adjustable parameters.

(b) *Prohibited controls.* You may not design your vehicles with emission control devices, systems, or elements of design that cause or contribute to an unreasonable risk to public health, welfare, or safety while operating. For example, this would apply if the vehicle emits a noxious or toxic substance it would otherwise not emit that contributes to such an unreasonable risk.

(c) [Reserved]

(d) *Defeat devices.* 40 CFR 1068.101 prohibits the use of defeat devices.

(e) *Air conditioning leakage.* Loss of refrigerant from your air conditioning systems may not exceed a total leakage rate of 11.0 grams per year or a percent leakage rate of 1.50 percent per year, whichever is greater. Calculate the total leakage rate in g/year as specified in 40 CFR 86.1867–12(a). Calculate the percent leakage rate as: [total

leakage rate (g/yr)] ÷ [total refrigerant capacity (g)] × 100. Round your percent leakage rate to the nearest one-hundredth of a percent. This paragraph (e) applies for all refrigerants.

(1) This paragraph (e) is intended to address air conditioning systems for which the primary purpose is to cool the driver compartment. This would generally include all cab-complete pickups and vans. Similarly, it does not apply for self-contained air conditioning used to cool passengers or refrigeration units used to cool cargo on vocational vehicles. For purposes of this paragraph (e), a self-contained system is an enclosed unit with its own evaporator and condenser even if it draws power from the engine.

(2) For purposes of this paragraph (e), “refrigerant capacity” is the total mass of refrigerant recommended by the vehicle manufacturer as representing a full charge. Where full charge is specified as a pressure, use good engineering judgment to convert the pressure and system volume to a mass.

(3) If air conditioning systems are designed such that a compliance demonstration under 40 CFR 86.1867–12(a) is impossible or impractical, you may ask to use alternative means to demonstrate that your air conditioning system achieves an equivalent level of control.

(f) *Battery durability monitor.* Model year 2030 and later battery electric vehicles and plug-in hybrid electric vehicles must meet the following requirements to estimate and monitor usable battery energy for batteries serving as Rechargeable Energy Storage Systems:

(1) Create a customer-accessible system that monitors and displays the vehicle’s State of Certified Energy (SOCE) with an accuracy of ±5%. Display the SOCE from paragraph (f)(2) of this section as a percentage expressed to the nearest whole number. Update the display as needed to reflect the current value of SOCE.

(2) Determine SOCE using the following equation:



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identified as HC8\_DC\_LR for the GEM run.

(c) Except for the CO<sub>2</sub> standards of § 1037.106, all provisions applicable to tractors under this part continue to apply to tractors certified to the standards of this section. Include the following compliance statement on your label instead of the statement specified in § 1037.135(c)(8): “THIS VEHICLE COMPLIES WITH U.S. EPA REGULATIONS FOR [MODEL YEAR] HEAVY-DUTY VEHICLES UNDER 40 CFR 1037.670.”

(d) The optional emission standards in this section are intended primarily for tractors that will be exported; however, you may include any tractors certified under this section in your emission credit calculation under § 1037.705 if they are part of your U.S.-directed production volume.

[81 FR 74048, Oct. 25, 2016, as amended at 86 FR 34491, June 29, 2021; 89 FR 29789, Apr. 22, 2024]

### Subpart H—Averaging, Banking, and Trading for Certification

#### § 1037.701 General provisions.

(a) You may average, bank, and trade emission credits for purposes of certification as described in this subpart and in subpart B of this part to show compliance with the standards of §§ 1037.105 and 1037.106. Note that § 1037.105(h) specifies standards involving limited or no use of emission credits under this subpart. Participation in this program is voluntary.

(b) The definitions of subpart I of this part apply to this subpart in addition to the following definitions:

(1) *Actual emission credits* means emission credits you have generated that we have verified by reviewing your final report.

(2) *Averaging set* means a set of vehicles in which emission credits may be exchanged. Note that an averaging set may comprise more than one regulatory subcategory. See § 1037.740.

(3) *Broker* means any entity that facilitates a trade of emission credits between a buyer and seller.

(4) *Buyer* means the entity that receives emission credits as a result of a trade.

(5) *Reserved emission credits* means emission credits you have generated that we have not yet verified by reviewing your final report.

(6) *Seller* means the entity that provides emission credits during a trade.

(7) *Standard* means the emission standard that applies under subpart B of this part for vehicles not participating in the ABT program of this subpart.

(8) *Trade* means to exchange emission credits, either as a buyer or seller.

(c) Emission credits may be exchanged only within an averaging set, except as specified in § 1037.740.

(d) You may not use emission credits generated under this subpart to offset any emissions that exceed an FEL or standard, except as allowed by § 1037.645.

(e) You may use either of the following approaches to retire or forego emission credits:

(1) You may trade emission credits generated from any number of your vehicles to the vehicle purchasers or other parties to retire the credits. Identify any such credits in the reports described in § 1037.730. Vehicles must comply with the applicable FELs even if you donate or sell the corresponding emission credits under this paragraph (e). Those credits may no longer be used by anyone to demonstrate compliance with any EPA emission standards.

(2) You may certify a family using an FEL below the emission standard as described in this part and choose not to generate emission credits for that family. If you do this, you do not need to calculate emission credits for those families and you do not need to submit or keep the associated records described in this subpart for that family.

(f) Emission credits may be used in the model year they are generated. Where we allow it, surplus emission credits may be banked for future model years. Surplus emission credits may sometimes be used for past model years, as described in § 1037.745. You may not apply banked or traded credits in a given model year until you have used all available credits through averaging to resolve credit balances for that model year.

## Environmental Protection Agency

## § 1037.710

(g) You may increase or decrease an FEL during the model year by amending your application for certification under §1037.225. The new FEL may apply only to vehicles you have not already introduced into commerce.

(h) See §1037.740 for special credit provisions that apply for credits generated under 40 CFR 86.1819–14(k)(7) or 1036.615 or §1037.615.

(i) Unless the regulations in this part explicitly allow it, you may not calculate Phase 1 credits more than once for any emission reduction. For example, if you generate Phase 1 CO<sub>2</sub> emission credits for a given hybrid vehicle under this part, no one may generate CO<sub>2</sub> emission credits for the associated hybrid engine under 40 CFR part 1036. However, Phase 1 credits could be generated for identical engines used in vehicles that did not generate credits under this part.

(j) You may use emission credits generated under the Phase 1 standards when certifying vehicles to Phase 2 standards. No credit adjustments are required other than corrections for different useful lives.

[81 FR 74048, Oct. 25, 2016, as amended at 86 FR 34491, June 29, 2021; 89 FR 29789, Apr. 22, 2024]

### § 1037.705 Generating and calculating CO<sub>2</sub> emission credits.

(a) The provisions of this section apply separately for calculating CO<sub>2</sub> emission credits for each pollutant.

(b) For each participating family or subfamily, calculate positive or negative emission credits relative to the otherwise applicable emission standard. Calculate positive emission credits for a family or subfamily that has an FEL below the standard. Calculate negative emission credits for a family or subfamily that has an FEL above the standard. Sum your positive and negative credits for the model year before rounding. Round the sum of emission credits to the nearest megagram (Mg), using consistent units with the following equation:

$$\text{Emission credits (Mg)} = (\text{Std} - \text{FEL}) \cdot \text{PL} \cdot \text{Volume} \cdot \text{UL} \cdot 10^{-6}$$

Eq. 1037.705–1

Where:

*Std* = the emission standard associated with the specific regulatory subcategory (g/ton-mile).

*FEL* = the family emission limit for the vehicle subfamily (g/ton-mile).

*PL* = standard payload, in tons.

*Volume* = U.S.-directed production volume of the vehicle subfamily, subject to the exclusions described in paragraph (c) of this section. For example, if you produce three configurations with the same FEL, the subfamily production volume would be the sum of the production volumes for these three configurations.

*UL* = useful life of the vehicle, in miles, as described in §§1037.105 and 1037.106.

(c) Compliance with the requirements of this subpart is determined at the end of the model year by calculating emission credits based on actual production volumes, excluding any of the following vehicles:

(1) Vehicles that you do not certify to the CO<sub>2</sub> standards of this part because they are permanently exempted under subpart G of this part or under 40 CFR part 1068.

(2) Exported vehicles even if they are certified under this part and labeled accordingly.

(3) Vehicles not subject to the requirements of this part, such as those excluded under §1037.5.

(4) Any other vehicles, where we indicate elsewhere in this part that they are not to be included in the calculations of this subpart.

[81 FR 74048, Oct. 25, 2016, as amended at 86 FR 34491, June 29, 2021; 88 FR 4653, Jan. 24, 2023; 89 FR 29789, Apr. 22, 2024]

### § 1037.710 Averaging.

(a) Averaging is the exchange of emission credits among your vehicle families. You may average emission credits only within the same averaging set, except as specified in §1037.740.

(b) You may certify one or more vehicle families (or subfamilies) to an FEL above the applicable standard, subject to any applicable FEL caps and other provisions in subpart B of this part, if you show in your application for certification that your projected balance of all emission-credit transactions in that model year is greater than or equal to zero or that a negative balance is allowed under §1037.745.

## § 1037.715

(c) If you certify a vehicle family to an FEL that exceeds the otherwise applicable standard, you must obtain enough emission credits to offset the vehicle family's deficit by the due date for the final report required in §1037.730. The emission credits used to address the deficit may come from your other vehicle families that generate emission credits in the same model year (or from later model years as specified in §1037.745), from emission credits you have banked from previous model years, or from emission credits generated in the same or previous model years that you obtained through trading.

[81 FR 74048, Oct. 25, 2016, as amended at 89 FR 29790, Apr. 22, 2024]

### § 1037.715 Banking.

(a) Banking is the retention of surplus emission credits by the manufacturer generating the emission credits for use in future model years for averaging or trading.

(b) You may designate any emission credits you plan to bank in the reports you submit under §1037.730 as reserved credits. During the model year and before the due date for the final report, you may designate your reserved emission credits for averaging or trading.

(c) Reserved credits become actual emission credits when you submit your final report. However, we may revoke these emission credits if we are unable to verify them after reviewing your reports or auditing your records.

(d) Banked credits retain the designation of the averaging set in which they were generated.

[81 FR 74048, Oct. 25, 2016, as amended at 89 FR 29790, Apr. 22, 2024]

### § 1037.720 Trading.

(a) Trading is the exchange of emission credits between manufacturers, or the transfer of credits to another party to retire them. You may use traded emission credits for averaging, banking, or further trading transactions. Traded emission credits remain subject to the averaging-set restrictions based on the averaging set in which they were generated.

(b) You may trade actual emission credits as described in this subpart.

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You may also trade reserved emission credits, but we may revoke these emission credits based on our review of your records or reports or those of the company with which you traded emission credits. You may trade banked credits within an averaging set to any certifying manufacturer.

(c) If a negative emission credit balance results from a transaction, both the buyer and seller are liable, except in cases we deem to involve fraud. See §1037.255(e) for cases involving fraud. We may void the certificates of all vehicle families participating in a trade that results in a manufacturer having a negative balance of emission credits. See §1037.745.

[81 FR 74048, Oct. 25, 2016, as amended at 89 FR 29790, Apr. 22, 2024]

### § 1037.725 Required information for certification.

(a) You must declare in your application for certification your intent to use the provisions of this subpart for each vehicle family that will be certified using the ABT program. You must also declare the FELs you select for the vehicle family or subfamily for each pollutant for which you are using the ABT program. Your FELs must comply with the specifications of subpart B of this part, including the FEL caps. FELs must be expressed to the same number of decimal places as the applicable standards.

(b) Include the following in your application for certification:

(1) A statement that, to the best of your belief, you will not have a negative balance of emission credits for any averaging set when all emission credits are calculated at the end of the year; or a statement that you will have a negative balance of emission credits for one or more averaging sets but that it is allowed under §1037.745.

(2) Calculations of projected emission credits (positive or negative) based on projected U.S.-directed production volumes. We may require you to include similar calculations from your other vehicle families to project your net credit balances for the model year. If you project negative emission credits for a family or subfamily, state the source of positive emission credits you



expect to use to offset the negative emission credits.

**§ 1037.730 ABT reports.**

(a) If you certify any vehicle families using the ABT provisions of this subpart, send us a final report by September 30 following the end of the model year.

(b) Your report must include the following information for each vehicle family participating in the ABT program:

(1) Vehicle-family and subfamily designations, and averaging set.

(2) The regulatory subcategory and emission standards that would otherwise apply to the vehicle family.

(3) The FEL for each pollutant. If you change the FEL after the start of production, identify the date that you started using the new FEL and/or give the vehicle identification number for the first vehicle covered by the new FEL. In this case, identify each applicable FEL and calculate the positive or negative emission credits as specified in § 1037.225.

(4) The projected and actual production volumes for the model year for calculating emission credits. If you changed an FEL during the model year, identify the actual production volume associated with each FEL.

(5) Useful life.

(6) Calculated positive or negative emission credits for the whole vehicle family. Identify any emission credits that you traded, as described in paragraph (d)(1) of this section.

(7) If you have a negative credit balance for the averaging set in the given model year, specify whether the vehicle family (or certain subfamilies with the vehicle family) have a credit deficit for the year. Consider for example, a manufacturer with three vehicle families ("A", "B", and "C") in a given averaging set. If family A generates enough credits to offset the negative credits of family B but not enough to also offset the negative credits of family C (and the manufacturer has no banked credits in the averaging set), the manufacturer may designate families A and B as having no deficit for the model year, provided it designates family C as having a deficit for the model year.

(c) Your report must include the following additional information:

(1) Show that your net balance of emission credits from all your participating vehicle families in each averaging set in the applicable model year is not negative, except as allowed under § 1037.745. Your credit tracking must account for the limitation on credit life under § 1037.740(c).

(2) State whether you will retain any emission credits for banking. If you choose to retire emission credits that would otherwise be eligible for banking, identify the families that generated the emission credits, including the number of emission credits from each family.

(3) State that the report's contents are accurate.

(4) Identify the technologies that make up the certified configuration associated with each vehicle identification number. You may identify this as a range of identification numbers for vehicles involving a single, identical certified configuration.

(d) If you trade emission credits, you must send us a report within 90 days after the transaction, as follows:

(1) As the seller, you must include the following information in your report:

(i) The corporate names of the buyer and any brokers.

(ii) A copy of any contracts related to the trade.

(iii) The averaging set corresponding to the vehicle families that generated emission credits for the trade, including the number of emission credits from each averaging set.

(2) As the buyer, you must include the following information in your report:

(i) The corporate names of the seller and any brokers.

(ii) A copy of any contracts related to the trade.

(iii) How you intend to use the emission credits, including the number of emission credits you intend to apply for each averaging set.

(e) Send your reports electronically to the Designated Compliance Officer using an approved information format. If you want to use a different format, send us a written request with justification for a waiver.

## § 1037.735

(f) Correct errors in your report as follows:

(1) If you notify us by the deadline for submitting the final report that errors mistakenly decreased your balance of emission credits, you may correct the errors and recalculate the balance of emission credits. If you notify us that errors mistakenly decreased your balance of emission credits after the deadline for submitting the final report, you may correct the errors and recalculate the balance of emission credits after applying a 10 percent discount to the credit correction, but only if you notify us within 24 months after the deadline for submitting the final report. If you report a negative balance of emission credits, we may disallow corrections under this paragraph (f)(1).

(2) If you or we determine any time that errors mistakenly increased your balance of emission credits, you must correct the errors and recalculate the balance of emission credits.

[81 FR 74048, Oct. 25, 2016, as amended at 88 FR 4653, Jan. 24, 2023; 89 FR 29790, Apr. 22, 2024]

## § 1037.735 Recordkeeping.

(a) You must organize and maintain your records as described in this section.

(b) Keep the records required by this section for at least eight years after the due date for the final report. You may not use emission credits for any vehicles if you do not keep all the records required under this section. You must therefore keep these records to continue to bank valid credits.

(c) Keep a copy of the reports we require in §§ 1037.725 and 1037.730.

(d) Keep records of the vehicle identification number for each vehicle you produce. You may identify these numbers as a range. If you change the FEL after the start of production, identify the date you started using each FEL and the range of vehicle identification numbers associated with each FEL. You must also identify the purchaser and destination for each vehicle you produce to the extent this information is available.

(e) We may require you to keep additional records or to send us relevant in-

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formation not required by this section in accordance with the Clean Air Act.

[81 FR 74048, Oct. 25, 2016, as amended at 88 FR 4653, Jan. 24, 2023]

## § 1037.740 Restrictions for using emission credits.

The following restrictions apply for using emission credits:

(a) *Averaging sets.* Except as specified in § 1037.105(h) and paragraph (b) of this section, emission credits may be exchanged only within an averaging set. The following principal averaging sets apply for vehicles certified to the standards of this part involving emission credits as described in this subpart:

(1) Light HDV.

(2) Medium HDV.

(3) Heavy HDV.

(4) Note that other separate averaging sets also apply for emission credits not related to this part. For example, vehicles certified to the greenhouse gas standards of 40 CFR part 86, subpart S, comprise a single averaging set. Separate averaging sets also apply for engines under 40 CFR part 1036, including engines used in vehicles subject to this subpart.

(b) *Credits from hybrid vehicles and other advanced technologies.* The following provisions apply for credits you generate under § 1037.615.

(1) Credits generated from Phase 1 vehicles may be used for any of the averaging sets identified in paragraph (a) of this section; you may also use those credits to demonstrate compliance with the CO<sub>2</sub> emission standards in 40 CFR part 86, subpart S, and 40 CFR part 1036. Similarly, you may use Phase 1 advanced-technology credits generated under 40 CFR 86.1819–14(k)(7) or 1036.615 to demonstrate compliance with the CO<sub>2</sub> standards in this part. The maximum amount of advanced-technology credits generated from Phase 1 vehicles that you may bring into each of the following service class groups is 60,000 Mg per model year:

(i) Spark-ignition HDE, Light HDE, and Light HDV. This group comprises the averaging set listed in paragraph (a)(1) of this section and the averaging set listed in 40 CFR 1036.740(a)(1) and (2).

(ii) Medium HDE and Medium HDV. This group comprises the averaging sets listed in paragraph (a)(2) of this section and 40 CFR 1036.740(a)(3).

(iii) Heavy HDE and Heavy HDV. This group comprises the averaging sets listed in paragraph (a)(3) of this section and 40 CFR 1036.740(a)(4).

(iv) This paragraph (b)(1) does not limit the advanced-technology credits that can be used within a service class group if they were generated in that same service class group.

(2) Credits generated from Phase 2 and later vehicles are subject to the averaging-set restrictions that apply to other emission credits.

(c) *Credit life.* Banked credits may be used only for five model years after the year in which they are generated. For example, credits you generate in model year 2018 may be used to demonstrate compliance with emission standards only through model year 2023.

(d) *Other restrictions.* Other sections of this part specify additional restrictions for using emission credits under certain special provisions.

[81 FR 74048, Oct. 25, 2016, as amended at 86 FR 34491, June 29, 2021; 88 FR 4653, Jan. 24, 2023; 89 FR 29790, Apr. 22, 2024]

#### § 1037.745 End-of-year CO<sub>2</sub> credit deficits.

Except as allowed by this section, we may void the certificate of any vehicle family certified to an FEL above the applicable standard for which you do not have sufficient credits by the deadline for submitting the final report.

(a) Your certificate for a vehicle family for which you do not have sufficient CO<sub>2</sub> credits will not be void if you remedy the deficit with surplus credits within three model years. For example, if you have a credit deficit of 500 Mg for a vehicle family at the end of model year 2015, you must generate (or otherwise obtain) a surplus of at least 500 Mg in that same averaging set by the end of model year 2018.

(b) You may not bank or trade away CO<sub>2</sub> credits in the averaging set in any model year in which you have a deficit.

(c) You may apply only surplus credits to your deficit. You may not apply credits to a deficit from an earlier model year if they were generated in a model year for which any of your vehi-

cle families for that averaging set had an end-of-year credit deficit.

(d) You must notify us in writing how you plan to eliminate the credit deficit within the specified time frame. If we determine that your plan is unreasonable or unrealistic, we may deny an application for certification for a vehicle family if its FEL would increase your credit deficit. We may determine that your plan is unreasonable or unrealistic based on a consideration of past and projected use of specific technologies, the historical sales mix of your vehicle models, your commitment to limit production of higher-emission vehicles, and expected access to traded credits. We may also consider your plan unreasonable if your credit deficit increases from one model year to the next. We may require that you send us interim reports describing your progress toward resolving your credit deficit over the course of a model year.

(e) If you do not remedy the deficit with surplus credits within three model years, we may void your certificate for that vehicle family. Note that voiding a certificate applies *ab initio*. Where the net deficit is less than the total amount of negative credits originally generated by the family, we will void the certificate only with respect to the number of vehicles needed to reach the amount of the net deficit. For example, if the original vehicle family generated 500 Mg of negative credits, and the manufacturer's net deficit after three years was 250 Mg, we would void the certificate with respect to half of the vehicles in the family.

(f) For purposes of calculating the statute of limitations, the following actions are all considered to occur at the expiration of the deadline for offsetting a deficit as specified in paragraph (a) of this section:

(1) Failing to meet the requirements of paragraph (a) of this section.

(2) Failing to satisfy the conditions upon which a certificate was issued relative to offsetting a deficit.

(3) Selling, offering for sale, introducing or delivering into U.S. commerce, or importing vehicles that are found not to be covered by a certificate as a result of failing to offset a deficit.

[81 FR 74048, Oct. 25, 2016, as amended at 89 FR 29790, Apr. 22, 2024]

**§ 1037.750 What can happen if I do not comply with the provisions of this subpart?**

(a) For each vehicle family participating in the ABT program, the certificate of conformity is conditioned upon full compliance with the provisions of this subpart during and after the model year. You are responsible to establish to our satisfaction that you fully comply with applicable requirements. We may void the certificate of conformity for a vehicle family if you fail to comply with any provisions of this subpart.

(b) You may certify your vehicle family or subfamily to an FEL above an applicable standard based on a projection that you will have enough emission credits to offset the deficit for the vehicle family. See § 1037.745 for provisions specifying what happens if you cannot show in your final report that you have enough actual emission credits to offset a deficit for any pollutant in a vehicle family.

(c) We may void the certificate of conformity for a vehicle family if you fail to keep records, send reports, or give us information we request. Note that failing to keep records, send reports, or give us information we request is also a violation of 42 U.S.C. 7522(a)(2).

(d) You may ask for a hearing if we void your certificate under this section (see § 1037.820).

**§ 1037.755 Information provided to the Department of Transportation.**

After receipt of each manufacturer's final report as specified in § 1037.730 and completion of any verification testing required to validate the manufacturer's submitted final data, we will issue a report to the Department of Transportation with CO<sub>2</sub> emission information and will verify the accuracy of each manufacturer's equivalent fuel consumption data required by NHTSA under 49 CFR 535.8. We will send a report to DOT for each vehicle manufacturer based on each regulatory category and subcategory, including sufficient information for NHTSA to determine fuel consumption and associated credit values. See 49 CFR 535.8 to determine if NHTSA deems submission of this information to EPA to also be a submission to NHTSA.

**Subpart I—Definitions and Other Reference Information**

**§ 1037.801 Definitions.**

The following definitions apply to this part. The definitions apply to all subparts unless we note otherwise. All undefined terms have the meaning the Act gives to them. The definitions follow:

*Act* means the Clean Air Act, as amended, 42 U.S.C. 7401–7671q.

*Adjustable parameter* has the meaning given in 40 CFR 1068.30.

*Adjusted Loaded Vehicle Weight* means the numerical average of vehicle curb weight and GVWR.

*Advanced technology* means vehicle technology certified under 40 CFR 86.1819–14(k)(7), 40 CFR 1036.615, or § 1037.615.

*Aftertreatment* means relating to a catalytic converter, particulate filter, or any other system, component, or technology mounted downstream of the exhaust valve (or exhaust port) whose design function is to decrease emissions in the vehicle exhaust before it is exhausted to the environment. Exhaust gas recirculation (EGR) and turbochargers are not aftertreatment.

*Aircraft* means any vehicle capable of sustained air travel more than 100 feet off the ground.

*Alcohol-fueled vehicle* means a vehicle that is designed to run using an alcohol fuel. For purposes of this definition, alcohol fuels do not include fuels with a nominal alcohol content below 25 percent by volume.

*Alternative fuel conversion* has the meaning given for clean alternative fuel conversion in 40 CFR 85.502.

*Ambulance* has the meaning given in 40 CFR 86.1803.

*Amphibious vehicle* means a motor vehicle that is also designed for operation on water. Note that high ground clearance that enables a vehicle to drive through water rather than floating on the water does not make a vehicle amphibious.

*A to B testing* means testing performed in pairs to allow comparison of two vehicles or other test articles. Back-to-back tests are performed on Article A and Article B, changing only the variable(s) of interest for the two tests.



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to which its earlier comments were considered in preparing the draft statement.

4. The clearinghouses may also be used, by mutual agreement, for securing reviews of the draft environmental impact statement. However, the Federal agency may wish to deal directly with appropriate State or local agencies in the review of impact statements because the clearinghouses may be unwilling or unable to handle this phase of the process. In some cases, the Governor may have designated a specific agency, other than the clearinghouse, for securing reviews of impact statements. In any case, the clearinghouses should be sent copies of the impact statement.

5. To aid clearinghouses in coordinating State and local comments, draft statements should include copies of State and local agency comments made earlier under the A-95 process and should indicate on the summary sheet those other agencies from which comments have been requested, as specified in Attachment 1.

**PART 523—VEHICLE  
CLASSIFICATION**

Sec.

523.1 Scope.

523.2 Definitions.

523.3 Automobile.

523.4 Passenger automobile.

523.5 Non-passenger automobile.

523.6 Heavy-duty vehicle.

523.7 Heavy-duty pickup trucks and vans.

523.8 Heavy-duty vocational vehicle.

523.9 Truck tractors.

523.10 Heavy-duty trailers.

AUTHORITY: 49 U.S.C. 32901; delegation of authority at 49 CFR 1.95.

**§ 523.1 Scope.**

This part establishes categories of vehicles that are subject to title V of the Motor Vehicle Information and Cost Savings Act, 15 U.S.C. 2001 *et seq.*

(Sec. 301, Pub. L. 94-163, 80 Stat. 901 (15 U.S.C. 2001))

[42 FR 38362, July 28, 1977]

**§ 523.2 Definitions.**

As used in this part:

*Ambulance* has the meaning given in 40 CFR 86.1803.

*Approach angle* means the smallest angle, in a plane side view of an automobile, formed by the level surface on which the automobile is standing and a line tangent to the front tire static loaded radius arc and touching the un-

derside of the automobile forward of the front tire.

*Axle clearance* means the vertical distance from the level surface on which an automobile is standing to the lowest point on the axle differential of the automobile.

*Base tire* (for passenger automobiles, light trucks, and medium duty passenger vehicles) means the tire size specified as standard equipment by the manufacturer on each unique combination of a vehicle's footprint and model type. Standard equipment is defined in 40 CFR 86.1803.

*Basic vehicle frontal area* is used as defined in 40 CFR 86.1803 for passenger automobiles, light trucks, medium duty passenger vehicles and Class 2b through 3 pickup trucks and vans. For heavy-duty tracts and vocational vehicles, it has the meaning given in 40 CFR 1037.801.

*Breakover angle* means the supplement of the largest angle, in the plan side view of an automobile that can be formed by two lines tangent to the front and rear static loaded radii arcs and intersecting at a point on the underside of the automobile.

*Bus* has the meaning given in 49 CFR 571.3.

*Cab-complete vehicle* means a vehicle that is first sold as an incomplete vehicle that substantially includes the vehicle cab section as defined in 40 CFR 1037.801. For example, vehicles known commercially as chassis-cabs, cab-chassis, box-deletes, bed-deletes, and cut-away vans are considered cab-complete vehicles. A cab includes a steering column and a passenger compartment. Note that a vehicle lacking some components of the cab is a cab-complete vehicle if it substantially includes the cab.

*Cargo-carrying volume* means the luggage capacity or cargo volume index, as appropriate, and as those terms are defined in 40 CFR 600.315-08, in the case of automobiles to which either of these terms apply. With respect to automobiles to which neither of these terms apply, "cargo-carrying volume" means the total volume in cubic feet, rounded to the nearest 0.1 cubic feet, of

either an automobile's enclosed non-seating space that is intended primarily for carrying cargo and is not accessible from the passenger compartment, or the space intended primarily for carrying cargo bounded in the front by a vertical plane that is perpendicular to the longitudinal centerline of the automobile and passes through the rearmost point on the rearmost seat and elsewhere by the automobile's interior surfaces.

*Class 2b vehicles* are vehicles with a gross vehicle weight rating (GVWR) ranging from 8,501 to 10,000 pounds.

*Class 3 through Class 8 vehicles* are vehicles with a gross vehicle weight rating (GVWR) of 10,001 pounds or more as defined in 49 CFR 565.15.

*Coach bus* has the meaning given in 40 CFR 1037.801.

*Commercial medium- and heavy-duty on-highway vehicle* means an on-highway vehicle with a gross vehicle weight rating of 10,000 pounds or more as defined in 49 U.S.C. 32901(a)(7).

*Complete vehicle* has the meaning given to *completed vehicle* as defined in 49 CFR 567.3.

*Concrete mixer* has the meaning given in 40 CFR 1037.801.

*Curb weight* has the meaning given in 40 CFR 86.1803-01.

*Dedicated vehicle* has the same meaning as dedicated automobile as defined in 49 U.S.C. 32901(a)(8).

*Departure angle* means the smallest angle, in a plane side view of an automobile, formed by the level surface on which the automobile is standing and a line tangent to the rear tire static loaded radius arc and touching the underside of the automobile rearward of the rear tire.

*Dual-fueled vehicle (multi-fuel, or flexible-fuel vehicle)* has the same meaning as dual fueled automobile as defined in 49 U.S.C. 32901(a)(9).

*Electric vehicle* means a vehicle that does not include an engine, and is powered solely by an external source of electricity and/or solar power. Note that this does not include electric hybrid or fuel-cell vehicles that use a chemical fuel such as gasoline, diesel fuel, or hydrogen. Electric vehicles may also be referred to as all-electric vehicles to distinguish them from hybrid vehicles.

*Emergency vehicle* means one of the following:

(1) For passenger cars, light trucks and medium duty passenger vehicles, emergency vehicle has the meaning given in 49 U.S.C. 32902(e).

(2) For heavy-duty vehicles, emergency vehicle has the meaning given in 40 CFR 1037.801.

*Engine code* has the meaning given in 40 CFR 86.1803.

*Final stage manufacturer* has the meaning given in 49 CFR 567.3.

*Fire truck* has the meaning given in 40 CFR 86.1803.

*Footprint* is defined as the product of track width (measured in inches, calculated as the average of front and rear track widths, and rounded to the nearest tenth of an inch) times wheelbase (measured in inches and rounded to the nearest tenth of an inch), divided by 144 and then rounded to the nearest tenth of a square foot. For purposes of this definition, track width is the lateral distance between the centerlines of the base tires at ground, including the camber angle. For purposes of this definition, wheelbase is the longitudinal distance between front and rear wheel centerlines.

*Full-size pickup truck* means a light truck or medium duty passenger vehicle that meets the specifications in 40 CFR 86.1803-01.

*Gross axle weight rating (GAWR)* has the meaning given in 49 CFR 571.3.

*Gross combination weight rating (GCWR)* has the meaning given in 49 CFR 571.3.

*Gross vehicle weight rating (GVWR)* has the meaning given in 49 CFR 571.3.

*Heavy-duty engine* means any engine used for (or for which the engine manufacturer could reasonably expect to be used for) motive power in a heavy-duty vehicle. For purposes of this definition in this part, the term "engine" includes internal combustion engines and other devices that convert chemical fuel into motive power. For example, a fuel cell and motor used in a heavy-duty vehicle is a heavy-duty engine. Heavy duty-engines include those engines subject to the standards in 49 CFR part 535.

*Heavy-duty vehicle* means a vehicle as defined in § 523.6.

*Hitch* means a device attached to the chassis of a vehicle for towing.

*Incomplete vehicle* has the meaning given in 49 CFR 567.3.

*Light truck* means a non-passenger automobile meeting the criteria in § 523.5.

*Manufacturer* has the meaning given in 49 U.S.C. 32901(a)(14).

*Medium duty passenger vehicle* means a vehicle which would satisfy the criteria in § 523.5 (relating to light trucks) but for its gross vehicle weight rating or its curb weight, which is rated at more than 8,500 lbs GVWR or has a vehicle curb weight of more than 6,000 pounds or has a basic vehicle frontal area in excess of 45 square feet, and which is designed primarily to transport passengers, but does not include a vehicle that—

(1) Is an “incomplete vehicle” as defined in this subpart; or

(2) Has a seating capacity of more than 12 persons; or

(3) Is designed for more than 9 persons in seating rearward of the driver's seat; or

(4) Is equipped with an open cargo area (for example, a pick-up truck box or bed) of 72.0 inches in interior length or more. A covered box not readily accessible from the passenger compartment will be considered an open cargo area for purposes of this definition.

*Mild hybrid gasoline-electric vehicle* means a vehicle as defined by EPA in 40 CFR 86.1866–12(e).

*Motor home* has the meaning given in 49 CFR 571.3.

*Motor vehicle* has the meaning given in 49 U.S.C. 30102.

*Passenger-carrying volume* means the sum of the front seat volume and, if any, rear seat volume, as defined in 40 CFR 600.315–08, in the case of automobiles to which that term applies. With respect to automobiles to which that term does not apply, “passenger-carrying volume” means the sum in cubic feet, rounded to the nearest 0.1 cubic feet, of the volume of a vehicle's front seat and seats to the rear of the front seat, as applicable, calculated as follows with the head room, shoulder room, and leg room dimensions determined in accordance with the procedures outlined in Society of Automotive Engineers Recommended Prac-

tice J1100, Motor Vehicle Dimensions (Report of Human Factors Engineering Committee, Society of Automotive Engineers, approved November 2009).

(1) For front seat volume, divide 1,728 into the product of the following SAE dimensions, measured in inches to the nearest 0.1 inches, and round the quotient to the nearest 0.001 cubic feet.

(i) H61-Effective head room—front.

(ii) W3-Shoulder room—front.

(iii) L34-Maximum effective leg room—accelerator.

(2) For the volume of seats to the rear of the front seat, divide 1,728 into the product of the following SAE dimensions, measured in inches to the nearest 0.1 inches, and rounded the quotient to the nearest 0.001 cubic feet.

(i) H63-Effective head room—second.

(ii) W4-Shoulder room—second.

(iii) L51-Minimum effective leg room—second.

*Pickup truck* means a non-passenger automobile which has a passenger compartment and an open cargo area (bed).

*Pinle hooks* means a type of towing hitch that uses a tow ring configuration to secure to a hook or a ball combination for the purpose of towing.

*Recreational vehicle or RV* means a motor vehicle equipped with living space and amenities found in a motor home.

*Refuse hauler* has the meaning given in 40 CFR 1037.801.

*Running clearance* means the distance from the surface on which an automobile is standing to the lowest point on the automobile, excluding unsprung weight.

*School bus* has the meaning given in 49 CFR 571.3.

*Static loaded radius arc* means a portion of a circle whose center is the center of a standard tire-rim combination of an automobile and whose radius is the distance from that center to the level surface on which the automobile is standing, measured with the automobile at curb weight, the wheel parallel to the vehicle's longitudinal centerline, and the tire inflated to the manufacturer's recommended pressure.

*Strong hybrid gasoline-electric vehicle* means a vehicle as defined by EPA in 40 CFR 86.1866–12(e).

*Temporary living quarters* means a space in the interior of an automobile

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in which people may temporarily live and which includes sleeping surfaces, such as beds, and household conveniences, such as a sink, stove, refrigerator, or toilet.

*Transmission class* has the meaning given in 40 CFR 600.002.

*Transmission configuration* has the meaning given in 40 CFR 600.002.

*Transmission type* has the meaning given in 40 CFR 86.1803.

*Truck tractor* has the meaning given in 49 CFR 571.3 and 49 CFR 535.5(c). This includes most heavy-duty vehicles specifically designed for the primary purpose of pulling trailers, but does not include vehicles designed to carry other loads. For purposes of this definition “other loads” would not include loads carried in the cab, sleeper compartment, or toolboxes. Examples of vehicles that are similar to tractors but that are not tractors under this part include dromedary tractors, automobile haulers, straight trucks with trailers hitches, and tow trucks.

*Van* means a vehicle with a body that fully encloses the driver and a cargo carrying or work performing compartment. The distance from the leading edge of the windshield to the foremost body section of vans is typically shorter than that of pickup trucks and sport utility vehicles.

*Vocational tractor* means a tractor that is classified as a vocational vehicle according to 40 CFR 1037.630

*Vocational vehicle (or heavy-duty vocational vehicle)* has the meaning given in § 523.8 and 49 CFR 535.5(b). This includes any vehicle that is equipped for a particular industry, trade or occupation such as construction, heavy hauling, mining, logging, oil fields, refuse and includes vehicles such as school buses, motorcoaches and RVs.

*Work truck* means a vehicle that is rated at more than 8,500 pounds and less than or equal to 10,000 pounds gross vehicle weight, and is not a medium-duty passenger vehicle as defined in 49 U.S.C. 32901(a)(19).

[81 FR 74235, Oct. 25, 2016, as amended at 85 FR 25272, Apr. 30, 2020]

### § 523.3 Automobile.

(a) An automobile is any 4-wheeled vehicle that is propelled by fuel, or by alternative fuel, manufactured pri-

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marily for use on public streets, roads, and highways and rated at less than 10,000 pounds gross vehicle weight, except:

(1) A vehicle operated only on a rail line;

(2) A vehicle manufactured in different stages by 2 or more manufacturers, if no intermediate or final-stage manufacturer of that vehicle manufactures more than 10,000 multi-stage vehicles per year; or

(3) A work truck.

(b) The following vehicles rated at more than 6,000 pounds and less than 10,000 pounds gross vehicle weight are determined to be automobiles:

(1) Vehicles which would satisfy the criteria in § 523.4 (relating to passenger automobiles) but for their gross vehicle weight rating.

(2) Vehicles which would satisfy the criteria in § 523.5 (relating to light trucks) but for their gross vehicle weight rating, and which

(i) Have a basic vehicle frontal area of 45 square feet or less,

(ii) Have a curb weight of 6,000 pounds or less,

(iii) Have a gross vehicle weight rating of 8,500 pounds or less, and

(iv) Are manufactured during the 1980 model year or thereafter.

(3) Vehicles that are defined as medium duty passenger vehicles, and which are manufactured during the 2011 model year or thereafter.

(Sec. 9, Pub. L. 89–670, 80 Stat. 981 (49 U.S.C. 1657); sec. 301, Pub. L. 94–163, 89 Stat. 901 (15 U.S.C. 2002); delegation of authority at 41 FR 25015, June 22, 1976)

[42 FR 38362, July 28, 1977, as amended at 43 FR 12013, Mar. 23, 1978; 44 FR 4493, Jan. 2, 1979; 71 FR 17676, Apr. 6, 2006; 74 FR 14449, Mar. 30, 2009]

### § 523.4 Passenger automobile.

A passenger automobile is any automobile (other than an automobile capable of off-highway operation) manufactured primarily for use in the transportation of not more than 10 individuals.

(Sec. 301, Pub. L. 94–163, 80 Stat. 901 (15 U.S.C. 2001))

[42 FR 38362, July 28, 1977]



## **SOLID WASTE DISPOSAL ACT<sup>1</sup>**

[Public Law 89–272; Approved October 20, 1965]

[As Amended Through P.L. 117–58, Enacted November 15, 2021]

【Currency: This publication is a compilation of the text of Public Law 89–272. It was last amended by the public law listed in the As Amended Through note above and below at the bottom of each page of the pdf version and reflects current law through the date of the enactment of the public law listed at <https://www.govinfo.gov/app/collection/comps/>】

【Note: While this publication does not represent an official version of any Federal statute, substantial efforts have been made to ensure the accuracy of its contents. The official version of Federal law is found in the United States Statutes at Large and in the United States Code. The legal effect to be given to the Statutes at Large and the United States Code is established by statute (1 U.S.C. 112, 204).】

### **TITLE II—SOLID WASTE DISPOSAL**

#### **Subtitle A—General Provisions**

##### **SHORT TITLE AND TABLE OF CONTENTS**

SEC. 1001. This title (hereinafter in this title referred to as “this Act”), together with the following table of contents, may be cited as the “Solid Waste Disposal Act”:

【42 U.S.C. 6901】

##### **Subtitle A—General Provisions**

- Sec. 1001. Short title and table of contents.
- Sec. 1002. Congressional findings.
- Sec. 1003. Objectives.
- Sec. 1004. Definitions.
- Sec. 1005. Governmental cooperation.
- Sec. 1006. Application of Act and integration with other Acts.
- Sec. 1007. Financial disclosure.
- Sec. 1008. Solid waste management information and guidelines.

##### **Subtitle B—Office of Solid Waste; Authorities of the Administrator**

- Sec. 2001. Office of Solid Waste and Interagency Coordinating Committee.
- Sec. 2002. Authorities of Administrator.
- Sec. 2003. Resource recovery and conservation panels.
- Sec. 2004. Grants for discarded tire disposal.
- Sec. 2005. Labeling of certain oil.
- Sec. 2006. Annual report.
- Sec. 2007. General authorization.
- Sec. 2008. Office of Ombudsman.

##### **Subtitle C—Hazardous Waste Management**

- Sec. 3001. Identification and listing of hazardous waste.

<sup>1</sup>The Solid Waste Disposal Act (42 U.S.C. 6901–6992k) consists of title II of Public Law 89–272 and the amendments made by subsequent enactments. This Act is popularly referred to as the Resource Conservation and Recovery Act, after the short title of the law that amended the Solid Waste Disposal Act in its entirety in 1976 (P.L. 94–580).

**Sec. 1001** **SOLID WASTE DISPOSAL ACT** **2**

- Sec. 3002. Standards applicable to generators of hazardous waste.
- Sec. 3003. Standards applicable to transporters of hazardous waste.
- Sec. 3004. Standards applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities.
- Sec. 3005. Permits for treatment, storage, or disposal of hazardous waste.
- Sec. 3006. Authorized State hazardous waste programs.
- Sec. 3007. Inspections.
- Sec. 3008. Federal enforcement.
- Sec. 3009. Retention of State authority.
- Sec. 3010. Effective date.
- Sec. 3011. Authorization of assistance to States.
- Sec. 3012. Hazardous waste site inventory.
- Sec. 3013. Monitoring, analysis, and testing.
- Sec. 3014. Restrictions on recycled oil.
- Sec. 3015. Expansion during interim status.
- Sec. 3016. Inventory of Federal Agency hazardous waste facilities.
- Sec. 3017. Export of hazardous waste.
- Sec. 3018. Domestic sewage.
- Sec. 3019. Exposure information and health assessments.
- Sec. 3020. Interim control of hazardous waste injection.
- Sec. 3021. Mixed waste inventory reports and plan.
- Sec. 3022. Public vessels.
- Sec. 3023. Federally owned treatment works.
- Sec. 3024. Hazardous waste electronic manifest system.

Subtitle D—State or Regional Solid Waste Plans

- Sec. 4001. Objectives of subtitle.
- Sec. 4002. Federal guidelines for plans.
- Sec. 4003. Minimum requirements for approval of plans.
- Sec. 4004. Criteria for sanitary landfills; sanitary landfills required for all disposal.
- Sec. 4005. Upgrading of open dumps.
- Sec. 4006. Procedure for development and implementation of State plan.
- Sec. 4007. Approval of State plan; Federal assistance.
- Sec. 4008. Federal assistance.
- Sec. 4009. Rural communities assistance.
- Sec. 4010. Adequacy of certain guidelines and criteria.

Subtitle E—Duties of the Secretary of Commerce in Resource and Recovery

- Sec. 5001. Functions.
- Sec. 5002. Development of specifications for secondary materials.
- Sec. 5003. Development of markets for recovered materials.
- Sec. 5004. Technology promotion.
- Sec. 5005. Nondiscrimination requirement.
- Sec. 5006. Authorization of appropriations.

Subtitle F—Federal Responsibilities

- Sec. 6001. Application of Federal, State, and local law to Federal facilities.
- Sec. 6002. Federal procurement.
- Sec. 6003. Cooperation with Environmental Protection Agency.
- Sec. 6004. Applicability of solid waste disposal guidelines to executive agencies.
- Sec. 6005. Increased use of recovered mineral component in federally funded projects involving procurement of cement or concrete.
- Sec. 6005. Increased use of recovered mineral component in federally funded projects involving procurement of cement or concrete.<sup>2</sup>
- Sec. 6006. Use of granular mine tailings.

Subtitle G—Miscellaneous Provisions

- Sec. 7001. Employee protection.
- Sec. 7002. Citizen suits.
- Sec. 7003. Imminent hazard.
- Sec. 7004. Petition for regulations; public participation.
- Sec. 7005. Separability.
- Sec. 7006. Judicial review.
- Sec. 7007. Grants or contracts for training projects.

<sup>2</sup>So in law. Two items relating to section 6005 were added by sections 108(b) and 6017(b) of Public Law 109–58 and 109–59, respectively.

- Sec. 7007. Grants or contracts for training projects.
- Sec. 7008. Payments.
- Sec. 7009. Labor standards.
- Sec. 7010. Law enforcement authority.

Subtitle H—Research, Development, Demonstration, and Information

- Sec. 8001. Research, demonstrations, training, and other activities.
- Sec. 8002. Special studies; plans for research, development, and demonstrations.
- Sec. 8003. Coordination, collection, and dissemination of information.
- Sec. 8004. Full-scale demonstration facilities.
- Sec. 8005. Special study and demonstration projects on recovery of useful energy and materials.
- Sec. 8006. Grants for resource recovery systems and improved solid waste disposal facilities.
- Sec. 8007. Authorization of appropriations.

Subtitle I—Regulation of Underground Storage Tanks

- Sec. 9001. Definitions.
- Sec. 9002. Notification.
- Sec. 9003. Release detection, prevention, and correction regulations.
- Sec. 9004. Approval of State programs.
- Sec. 9005. Inspections, monitoring, and testing.
- Sec. 9006. Federal enforcement.
- Sec. 9007. Federal facilities.
- Sec. 9008. State authority.
- Sec. 9009. Study of underground storage tanks.
- Sec. 9010. Operator training.
- Sec. 9011. Use of funds for release prevention and compliance.
- Sec. 9012. Delivery prohibition.
- Sec. 9013. Tanks on Tribal lands.
- Sec. 9014. Authorization of appropriations.

Subtitle J—Demonstration Medical Waste Tracking Program

- Sec. 11001. Scope of demonstration program for medical waste.
- Sec. 11002. Listing of medical wastes.
- Sec. 11003. Tracking of medical waste.
- Sec. 11004. Inspections.
- Sec. 11005. Enforcement.
- Sec. 11006. Federal facilities.
- Sec. 11007. Relationship to State law.
- Sec. 11008. Health impact report.
- Sec. 11009. General provisions.
- Sec. 11010. Effective date.
- Sec. 11011. Authorization of appropriations.

CONGRESSIONAL FINDINGS

SEC. 1002. (a) SOLID WASTE.—The Congress finds with respect to solid waste—

(1) that the continuing technological progress and improvement in methods of manufacture, packaging, and marketing of consumer products has resulted in an ever-mounting increase, and in a change in the characteristics, of the mass material discarded by the purchaser of such products;

(2) that the economic and population growth of our Nation, and the improvements in the standard of living enjoyed by our population, have required increased industrial production to meet our needs, and have made necessary the demolition of old buildings, the construction of new buildings, and the provision of highways and other avenues of transportation, which, together with related industrial, commercial, and agricultural operations, have resulted in a rising tide of scrap, discarded, and waste materials;

(3) that the continuing concentration of our population in expanding metropolitan and other urban areas has presented these communities with serious financial, management, inter-governmental, and technical problems in the disposal of solid wastes resulting from the industrial, commercial, domestic, and other activities carried on in such areas;

(4) that while the collection and disposal of solid wastes should continue to be primarily the function of State, regional, and local agencies, the problems of waste disposal as set forth above have become a matter national in scope and in concern and necessitate Federal action through financial and technical assistance and leadership in the development, demonstration, and application of new and improved methods and processes to reduce the amount of waste and unsalvageable materials and to provide for proper and economical solid waste disposal practices.

(b) ENVIRONMENT AND HEALTH.—The Congress finds with respect to the environment and health, that—

(1) although land is too valuable a national resource to be needlessly polluted by discarded materials, most solid waste is disposed of on land in open dumps and sanitary landfills;

(2) disposal of solid waste and hazardous waste in or on the land without careful planning and management can present a danger to human health and the environment;

(3) as a result of the Clean Air Act, the Water Pollution Control Act, and other Federal and State laws respecting public health and the environment, greater amounts of solid waste (in the form of sludge and other pollution treatment residues) have been created. Similarly, inadequate and environmentally unsound practices for the disposal or use of solid waste have created greater amounts of air and water pollution and other problems for the environment and for health;

(4) open dumping is particularly harmful to health, contaminates drinking water from underground and surface supplies, and pollutes the air and the land;

(5) the placement of inadequate controls on hazardous waste management will result in substantial risks to human health and the environment;

(6) if hazardous waste management is improperly performed in the first instance, corrective action is likely to be expensive, complex, and time consuming;

(7) certain classes of land disposal facilities are not capable of assuring long-term containment of certain hazardous wastes, and to avoid substantial risk to human health and the environment, reliance on land disposal should be minimized or eliminated, and land disposal, particularly landfill and surface impoundment, should be the least favored method for managing hazardous wastes; and

(8) alternatives to existing methods of land disposal must be developed since many of the cities in the United States will be running out of suitable solid waste disposal sites within five years unless immediate action is taken.

(c) MATERIALS.—The Congress finds with respect to materials, that—



(1) millions of tons of recoverable material which could be used are needlessly buried each year;

(2) methods are available to separate usable materials from solid waste; and

(3) the recovery and conservation of such materials can reduce the dependence of the United States on foreign resources and reduce the deficit in its balance of payments.

(d) ENERGY.—The Congress finds with respect to energy, that—

(1) solid waste represents a potential source of solid fuel, oil, or gas that can be converted into energy;

(2) the need exists to develop alternative energy sources for public and private consumption in order to reduce our dependence on such sources as petroleum products, natural gas, nuclear and hydroelectric generation; and

(3) technology exists to produce usable energy from solid waste.

[42 U.S.C. 6901]

#### OBJECTIVES AND NATIONAL POLICY

SEC. 1003. (a) OBJECTIVES.—The objectives of this Act are to promote the protection of health and environment and to conserve valuable material and energy resources by—

(1) providing technical and financial assistance to State and local governments and interstate agencies for the development of solid waste management plans (including resource recovery and resource conservation systems) which will promote improved solid waste management techniques (including more effective organizational arrangements), new and improved methods of collection, separation, and recovery of solid waste, and the environmentally safe disposal of nonrecoverable residues;

(2) providing training grants in occupations involving the design, operation, and maintenance of solid waste disposal systems;

(3) prohibiting future open dumping on the land and requiring the conversion of existing open dumps to facilities which do not pose a danger to the environment or to health;

(4) assuring that hazardous waste management practices are conducted in a manner which protects human health and the environment;

(5) requiring that hazardous waste be properly managed in the first instance thereby reducing the need for corrective action at a future date;

(6) minimizing the generation of hazardous waste and the land disposal of hazardous waste by encouraging process substitution, materials recovery, properly conducted recycling and reuse, and treatment;

(7) establishing a viable Federal-State partnership to carry out the purposes of this Act and insuring that the Administrator will, in carrying out the provisions of subtitle C of this Act, give a high priority to assisting and cooperating with

States in obtaining full authorization of State programs under subtitle C;

(8) providing for the promulgation of guidelines for solid waste collection, transport, separation, recovery, and disposal practices and systems;

(9) promoting a national research and development program for improved solid waste management and resource conservation techniques, more effective organizational arrangements, and new and improved methods of collection, separation, and recovery, and recycling of solid wastes and environmentally safe disposal of nonrecoverable residues;

(10) promoting the demonstration, construction, and application of solid waste management, resource recovery, and resource conservation systems which preserve and enhance the quality of air, water, and land resources; and

(11) establishing a cooperative effort among the Federal, State, and local governments and private enterprise in order to recover valuable materials and energy from solid waste.

(b) NATIONAL POLICY.—The Congress hereby declares it to be the national policy of the United States that, wherever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Waste that is nevertheless generated should be treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment.

[42 U.S.C. 6902]

#### DEFINITIONS

SEC. 1004. As used in this Act:

(1) The term “Administrator” means the Administrator of the Environmental Protection Agency.

(2) The term “construction,” with respect to any project of construction under this Act, means (A) the erection or building of new structures and acquisition of lands or interests therein, or the acquisition, replacement, expansion, remodeling, alteration, modernization, or extension of existing structures, and (B) the acquisition and installation of initial equipment of, or required in connection with, new or newly acquired structures or the expanded, remodeled, altered, modernized or extended part of existing structures (including trucks and other motor vehicles, and tractors, cranes, and other machinery) necessary for the proper utilization and operation of the facility after completion of the project; and includes preliminary planning to determine the economic and engineering feasibility and the public health and safety aspects of the project, the engineering, architectural, legal, fiscal, and economic investigations and studies, and any surveys, designs, plans, working drawings, specifications, and other action necessary for the carrying out of the project, and (C) the inspection and supervision of the process of carrying out the project to completion.

(2A) The term “demonstration” means the initial exhibition of a new technology process or practice or a significantly new combination or use of technologies, processes or practices, subsequent to the development stage, for the purpose of proving technological feasibility and cost effectiveness.

(3) The term “disposal” means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

(4) The term “Federal agency” means any department, agency, or other instrumentality of the Federal Government, any independent agency or establishment of the Federal Government including any Government corporation, and the Government Printing Office.

(5) The term “hazardous waste” means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may—

(A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

(6) The term “hazardous waste generation” means the act or process of producing hazardous waste.

(7) The term “hazardous waste management” means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous wastes.

(8) For purposes of Federal financial assistance (other than rural communities assistance), the term “implementation” does not include the acquisition, leasing, construction, or modification of facilities or equipment or the acquisition, leasing, or improvement of land.

(9) The term “intermunicipal agency” means an agency established by two or more municipalities with responsibility for planning or administration of solid waste.

(10) The term “interstate agency” means an agency of two or more municipalities in different States, or an agency established by two or more States, with authority to provide for the management of solid wastes and serving two or more municipalities located in different States.

(11) The term “long-term contract” means, when used in relation to solid waste supply, a contract of sufficient duration to assure the viability of a resource recovery facility (to the extent that such viability depends upon solid waste supply).

(12) The term “manifest” means the form used for identifying the quantity, composition, and the origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of disposal, treatment, or storage.

(13) The term “municipality” (A) means a city, town, borough, county, parish, district, or other public body created by or pursuant to State law, with responsibility for the planning or administration of solid waste management, or an Indian tribe or authorized tribal organization or Alaska Native village or organization, and (B) includes any rural community or unincorporated town or village or

any other public entity for which an application for assistance is made by a State or political subdivision thereof.

(14) The term “open dump” means any facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 and which is not a facility for disposal of hazardous waste.

(15) The term “person” means an individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body and shall include each department, agency, and instrumentality of the United States.

(16) The term “procurement item” means any device, good, substance, material, product, or other item whether real or personal property which is the subject of any purchase, barter, or other exchange made to procure such item.

(17) The term “procuring agency” means any Federal agency, or any State agency or agency of a political subdivision of a State which is using appropriated Federal funds for such procurement, or any person contracting with any such agency with respect to work performed under such contract.

(18) The term “recoverable” refers to the capability and likelihood of being recovered from solid waste for a commercial or industrial use.

(19) The term “recovered material” means waste material and byproducts which have been recovered or diverted from solid waste, but such term does not include those materials and byproducts generated from, and commonly reused within, an original manufacturing process.

(20) The term “recovered resources” means material or energy recovered from solid waste.

(21) The term “resource conservation” means reduction of the amounts of solid waste that are generated, reduction of overall resource consumption, and utilization of recovered resources.

(22) The term “resource recovery” means the recovery of material or energy from solid waste.

(23) The term “resource recovery system” means a solid waste management system which provides for collection, separation, recycling, and recovery of solid wastes, including disposal of non-recoverable waste residues.

(24) The term “resource recovery facility” means any facility at which solid waste is processed for the purpose of extracting, converting to energy, or otherwise separating and preparing solid waste for reuse.

(25) The term “regional authority” means the authority established or designated under section 4006.

(26) The term “sanitary landfill” means a facility for the disposal of solid waste which meets the criteria published under section 4004.

(26A) The term “sludge” means any solid, semisolid or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effects.



(27) The term “solid waste” means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

(28) The term “solid waste management” means the systematic administration of activities which provide for the collection, source separation, storage, transportation, transfer, processing, treatment, and disposal of solid waste.

(29) The term “solid waste management facility” includes—

(A) any resource recovery system or component thereof,

(B) any system, program, or facility for resource conservation, and

(C) any facility for the collection, source separation, storage, transportation, transfer, processing, treatment or disposal of solid wastes, including hazardous wastes, whether such facility is associated with facilities generating such wastes or otherwise.

(30) The terms “solid waste planning”, “solid waste management”, and “comprehensive planning” include planning or management respecting resource recovery and resource conservation.

(31) The term “State” means any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

(32) The term “State authority” means the agency established or designated under section 4007.

(33) The term “storage”, when used in connection with hazardous waste, means the containment of hazardous waste, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal of such hazardous waste.

(34) The term “treatment”, when used in connection with hazardous waste, means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste nonhazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume. Such term includes any activity or processing designed to change the physical form or chemical composition of hazardous waste so as to render it nonhazardous.

(35) The term “virgin material” means a raw material, including previously unused copper, aluminum, lead, zinc, iron, or other metal or metal ore, any undeveloped resource that is, or with new technology will become, a source of raw materials.

(36) The term “used oil” means any oil which has been—

(A) refined from crude oil,

(B) used, and

(C) as a result of such use, contaminated by physical or chemical impurities.

(37) The term “recycled oil” means any used oil which is re-used, following its original use, for any purpose (including the purpose for which the oil was originally used). Such term includes oil which is re-refined, reclaimed, burned, or reprocessed.

(38) The term “lubricating oil” means the fraction of crude oil which is sold for purposes of reducing friction in any industrial or mechanical device. Such term includes re-refined oil.

(39) The term “re-refined oil” means used oil from which the physical and chemical contaminants acquired through previous use have been removed through a refining process.

(40) Except as otherwise provided in this paragraph, the term “medical waste” means any solid waste which is generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals. Such term does not include any hazardous waste identified or listed under subtitle C or any household waste as defined in regulations under subtitle C.

(41) The term “mixed waste” means waste that contains both hazardous waste and source, special nuclear, or by-product material subject to the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.).

【42 U.S.C. 6903】

#### GOVERNMENTAL COOPERATION

SEC. 1005. (a) INTERSTATE COOPERATION.—The provisions of this Act to be carried out by States may be carried out by interstate agencies and provisions applicable to States may apply to interstate regions where such agencies and regions have been established by the respective States and approved by the Administrator. In any such case, action required to be taken by the Governor of a State, respecting regional designation shall be required to be taken by the Governor of each of the respective States with respect to so much of the interstate region as is within the jurisdiction of that State.

(b) CONSENT OF CONGRESS TO COMPACTS.—The consent of the Congress is hereby given to two or more States to negotiate and enter into agreements or compacts, not in conflict with any law or treaty of the United States, for—

(1) cooperative effort and mutual assistance for the management of solid waste or hazardous waste (or both) and the enforcement of their respective laws relating thereto, and

(2) the establishment of such agencies, joint or otherwise, as they may deem desirable for making effective such agreements or compacts.

No such agreement or compact shall be binding or obligatory upon any State a party thereto unless it is agreed upon by all parties to the agreement and until it has been approved by the Administrator and the Congress.

【42 U.S.C. 6904】

## APPLICATION OF ACT AND INTEGRATION WITH OTHER ACTS

SEC. 1006. (a) APPLICATION OF ACT.—Nothing in this Act shall be construed to apply to (or to authorize any State, interstate, or local authority to regulate) any activity or substance which is subject to the Federal Water Pollution Control Act (33 U.S.C. 1151 and following), the Safe Drinking Water Act (42 U.S.C. 300f and following), the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1401 and following), or the Atomic Energy Act of 1954 (42 U.S.C. 2011 and following) except to the extent that such application (or regulation) is not inconsistent with the requirements of such Acts.

(b) INTEGRATION WITH OTHER ACTS.—(1) The Administrator shall integrate all provisions of this Act for purposes of administration and enforcement and shall avoid duplication, to the maximum extent practicable, with the appropriate provisions of the Clean Air Act (42 U.S.C. 1857 and following), the Federal Water Pollution Control Act (33 U.S.C. 1151 and following), the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 135 and following), the Safe Drinking Water Act (42 U.S.C. 300f and following), the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1401 and following) and such other Acts of Congress as grant regulatory authority to the Administrator. Such integration shall be effected only to the extent that it can be done in a manner consistent with the goals and policies expressed in this Act and in the other acts referred to in this subsection.

(2)(A) As promptly as practicable after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall submit a report describing—

(i) the current data and information available on emissions of polychlorinated dibenzo-p-dioxins from resource recovery facilities burning municipal solid waste;

(ii) any significant risks to human health posed by these emissions; and

(iii) operating practices appropriate for controlling these emissions.

(B) Based on the report under subparagraph (A) and on any future information on such emissions, the Administrator may publish advisories or guidelines regarding the control of dioxin emissions from such facilities. Nothing in this paragraph shall be construed to preempt or otherwise affect the authority of the Administrator to promulgate any regulations under the Clean Air Act regarding emissions of polychlorinated dibenzo-p-dioxins.

(3) Notwithstanding any other provisions of law, in developing solid waste plans, it is the intention of this Act that in determining the size of a waste-to-energy facility, adequate provisions shall be given to the present and reasonably anticipated future needs, including those needs created by thorough implementation of section 6002(h), of the recycling and resource recovery interests within the area encompassed by the solid waste plan.

(c) INTEGRATION WITH THE SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977.—(1) No later than 90 days after the date of enactment of the Solid Waste Disposal Act Amendments of 1980, the Administrator shall review any regulations applicable to

the treatment, storage, or disposal of any coal mining wastes or overburden promulgated by the Secretary of the Interior under the Surface Mining and Reclamation Act of 1977. If the Administrator determines that any requirement of final regulations promulgated under any section of subtitle C relating to mining wastes or overburden is not adequately addressed in such regulations promulgated by the Secretary, the Administrator shall promptly transmit such determination, together with suggested revisions and supporting documentation, to the Secretary.

(2) The Secretary of the Interior shall have exclusive responsibility for carrying out any requirement of subtitle C of this Act with respect to coal mining wastes or overburden for which a surface coal mining and reclamation permit is issued or approved under the Surface Mining Control and Reclamation Act of 1977. The Secretary shall, with the concurrence of the Administrator, promulgate such regulations as may be necessary to carry out the purposes of this subsection and shall integrate such regulations with regulations promulgated under the Surface Mining Control and Reclamation Act of 1977.

■[42 U.S.C. 6905]■

#### FINANCIAL DISCLOSURE

SEC. 1007. (a) STATEMENT.—Each officer or employee of the Administrator who—

(1) performs any function or duty under this Act; and  
 (2) has any known financial interest in any person who applies for or receives financial assistance under this Act  
 shall, beginning on February 1, 1977, annually file with the Administrator a written statement concerning all such interests held by such officer or employee during the preceding calendar year. Such statement shall be available to the public.

(b) ACTION BY ADMINISTRATOR.—The Administrator shall—

(1) act within ninety days after the date of enactment of this Act—

(A) to define the term “known financial interest” for purposes of subsection (a) of this section; and

(B) to establish the methods by which the requirement to file written statements specified in subsection (a) of this section will be monitored and enforced, including appropriate provision for the filing by such officers and employees of such statements and the review by the Administrator of such statements; and

(2) report to the Congress on June 1, 1978, and of each succeeding calendar year with respect to such disclosures and the actions taken in regard thereto during the preceding calendar year.

(c) EXEMPTION.—In the rules prescribed under subsection (b) of this section, the Administrator may identify specific positions within the Environmental Protection Agency which are of a non-policy-making nature and provide that officers or employees occupying such positions shall be exempt from the requirements of this section.



(d) PENALTY.—Any officer or employee who is subject to, and knowingly violates, this section shall be fined not more than \$2,500 or imprisoned not more than one year, or both.

【42 U.S.C. 6906】

#### SOLID WASTE MANAGEMENT INFORMATION AND GUIDELINES

SEC. 1008. (a) GUIDELINES.—Within one year of enactment of this section, and from time to time thereafter, the Administrator shall, in cooperation with appropriate Federal, State, municipal, and intermunicipal agencies, and in consultation with other interested persons, and after public hearings, develop and publish suggested guidelines for solid waste management. Such suggested guidelines shall—

(1) provide a technical and economic description of the level of performance that can be attained by various available solid waste management practices (including operating practices) which provide for the protection of public health and the environment;

(2) not later than two years after the enactment of this section, describe levels of performance, including appropriate methods and degrees of control, that provide at a minimum for (A) protection of public health and welfare; (B) protection of the quality of ground waters and surface waters from leachates; (C) protection of the quality of surface waters from runoff through compliance with effluent limitations under the Federal Water Pollution Control Act, as amended; (D) protection of ambient air quality through compliance with new source performance standards or requirements of air quality implementation plans under the Clean Air Act, as amended; (E) disease and vector control; (F) safety; and (G) esthetics; and

(3) provide minimum criteria to be used by the States to define those solid waste management practices which constitute the open dumping of solid waste or hazardous waste and are to be prohibited under subtitle D of this Act.

Where appropriate, such suggested guidelines also shall include minimum information for use in deciding the adequate location, design, and construction of facilities associated with solid waste management practices, including the consideration of regional, geographic, demographic, and climatic factors.

(b) NOTICE.—The Administrator shall notify the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a reasonable time before publishing any suggested guidelines or proposed regulations under this Act of the content of such proposed suggested guidelines or proposed regulations under this Act.

【42 U.S.C. 6907】

#### Subtitle B—Office of Solid Waste; Authorities of the Administrator

##### OFFICE OF SOLID WASTE AND INTERAGENCY COORDINATING COMMITTEE

SEC. 2001. (a) OFFICE OF SOLID WASTE.—The Administrator shall establish within the Environmental Protection Agency an Of-

Office of Solid Waste (hereinafter referred to as the "Office") to be headed by an Assistant Administrator of the Environmental Protection Agency. The duties and responsibilities (other than duties and responsibilities relating to research and development) of the Administrator under this Act (as modified by applicable reorganization plans) shall be carried out through the Office.<sup>3</sup>

(b) INTERAGENCY COORDINATING COMMITTEE.—(1) There is hereby established an Interagency Coordinating Committee on Federal Resource Conservation and Recovery Activities which shall have the responsibility for coordinating all activities dealing with resource conservation and recovery from solid waste carried out by the Environmental Protection Agency, the Department of Energy, the Department of Commerce, and all other Federal agencies which conduct such activities pursuant to this or any other Act. For purposes of this subsection, the term "resource conservation and recovery activities" shall include, but not be limited to, all research, development and demonstration projects on resource conservation or energy, or material, recovery from solid waste, and all technical or financial assistance for State or local planning for, or implementation of, projects related to resource conservation or energy or material, recovery from solid waste. The Committee shall be chaired by the Administrator of the Environmental Protection Agency or such person as the Administrator may designate. Members of the Committee shall include representatives of the Department of Energy, the Department of Commerce, the Department of the Treasury, and each other Federal agency which the Administrator determines to have programs or responsibilities affecting resource conservation or recovery.

(2) The Interagency Coordinating Committee shall include oversight of the implementation of—

(A) the May 1979 Memorandum of Understanding on Energy Recovery from Municipal Solid Waste between the Environmental Protection Agency and the Department of Energy;

(B) the May 30, 1978, Interagency Agreement between the Department of Commerce and the Environmental Protection Agency on the Implementation of the Resource Conservation and Recovery Act; and

(C) any subsequent agreements between these agencies or other Federal agencies which address Federal resource recovery or conservation activities.

(3) The Interagency Coordinating Committee shall submit to the Congress by March 1, 1981, and on March 1 each year thereafter, a five-year action plan for Federal resource conservation or recovery activities which shall identify means and propose programs to encourage resource conservation or material and energy recovery and increase private and municipal investment in resource conservation or recovery systems, especially those which provide for material conservation or recovery as well as energy con-

<sup>3</sup>Section 307(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 6911a) provides:

(b) The Assistant Administrator of the Environmental Protection Agency appointed to head the Office of Solid Waste shall be in addition to the five Assistant Administrators of the Environmental Protection Agency provided for in section 1(d) of Reorganization Plan Numbered 3 of 1970 and the additional Assistant Administrator provided by the Toxic Substances Control Act, shall be appointed by the President by and with the advice and consent of the Senate.

servation or recovery. Such plan shall describe, at a minimum, a coordinated and nonduplicatory plan for resource recovery and conservation activities for the Environmental Protection Agency, the Department of Energy, the Department of Commerce, and all other Federal agencies which conduct such activities.

[42 U.S.C. 6911]

#### AUTHORITIES OF ADMINISTRATOR

SEC. 2002. (a) AUTHORITIES.—In carrying out this Act, the Administrator is authorized to—

(1) prescribe, in consultation with Federal, State, and regional authorities, such regulations as are necessary to carry out his functions under this Act;

(2) consult with or exchange information with other Federal agencies undertaking research, development, demonstration projects, studies, or investigations relating to solid waste;

(3) provide technical and financial assistance to States or regional agencies in the development and implementation of solid waste plans and hazardous waste management programs;

(4) consult with representatives of science, industry, agriculture, labor, environmental protection and consumer organizations, and other groups, as he deems advisable;

(5) utilize the information, facilities, personnel and other resources of Federal agencies, including the National Bureau of Standards<sup>4</sup> and the National Bureau of the Census, on a reimbursable basis, to perform research and analyses and conduct studies and investigations related to resource recovery and conservation and to otherwise carry out the Administrator's functions under this Act; and

(6) to delegate to the Secretary of Transportation the performance of any inspection or enforcement function under this Act relating to the transportation of hazardous waste where such delegation would avoid unnecessary duplication of activity and would carry out the objectives of this Act and of the Hazardous Materials Transportation Act.

(b) REVISION OF REGULATIONS.—Each regulation promulgated under this Act shall be reviewed and, where necessary, revised not less frequently than every three years.

(c) CRIMINAL INVESTIGATIONS.—In carrying out the provisions of this Act, the Administrator, and duly-designated agents and employees of the Environmental Protection Agency, are authorized to initiate and conduct investigations under the criminal provisions of this Act, and to refer the results of these investigations to the Attorney General for prosecution in appropriate cases.

[42 U.S.C. 6912]

#### RESOURCE RECOVERY AND CONSERVATION PANELS

SEC. 2003. The Administrator shall provide teams of personnel, including Federal, State, and local employees or contractors (here-

<sup>4</sup>The reference in section 2002(a)(5) to the National Bureau of Standards is deemed to refer to the National Institute of Standards and Technology, pursuant to section 5115(c) of Public Law 100-418.

inafter referred to as “Resource Conservation and Recovery Panels”) to provide Federal agencies, States and local governments upon request with technical assistance on solid waste management, resource recovery, and resource conservation. Such teams shall include technical, marketing, financial, and institutional specialists, and the services of such teams shall be provided without charge to States or local governments.

【42 U.S.C. 6913】

#### GRANTS FOR DISCARDED TIRE DISPOSAL

SEC. 2004. (a) GRANTS.—The Administrator shall make available grants equal to 5 percent of the purchase price of tire shredders (including portable shredders attached to tire collection trucks) to those eligible applicants best meeting criteria promulgated under this section. An eligible applicant may be any private purchaser, public body, or public-private joint venture. Criteria for receiving grants shall be promulgated under this section and shall include the policy to offer any private purchaser the first option to receive a grant, the policy to develop widespread geographic distribution of tire shredding facilities, the need for such facilities within a geographic area, and the projected risk and viability of any such venture. In the case of an application under this section from a public body, the Administrator shall first make a determination that there are no private purchasers interested in making an application before approving a grant to a public body.

(b) AUTHORIZATION.—There is authorized to be appropriated \$750,000 for each of the fiscal years 1978 and 1979 to carry out this section.

【42 U.S.C. 6914】

#### LABELING OF CERTAIN OIL

SEC. 2005. For purposes of any provision of law which requires the labeling of commodities, lubricating oil shall be treated as lawfully labeled only if it bears the following statement, prominently displayed:

“ DON’T POLLUTE—CONSERVE RESOURCES; RETURN USED OIL TO COLLECTION CENTERS”.

【42 U.S.C. 6914a】

#### ANNUAL REPORT

SEC. 2006. The Administrator shall transmit to the Congress and the President, not later than ninety days after the end of each fiscal year, a comprehensive and detailed report on all activities of the Office during the preceding fiscal year. Each such report shall include—

- (1) a statement of specific and detailed objectives for the activities and programs conducted and assisted under this Act;
- (2) statements of the Administrator’s conclusions as to the effectiveness of such activities and programs in meeting the



stated objectives and the purposes of this Act, measured through the end of such fiscal year;

(3) a summary of outstanding solid waste problems confronting the Administration, in order of priority;

(4) recommendations with respect to such legislation which the Administrator deems necessary or desirable to assist in solving problems respecting solid waste;

(5) all other information required to be submitted to the Congress pursuant to any other provision of this Act; and

(6) the Administrator's plans for activities and programs respecting solid waste during the next fiscal year.

[42 U.S.C. 6915]

#### GENERAL AUTHORIZATION

SEC. 2007. (a) GENERAL ADMINISTRATION.—There are authorized to be appropriated to the Administrator for the purpose of carrying out the provisions of this Act, \$35,000,000 for the fiscal year ending September 30, 1977, \$38,000,000 for the fiscal year ending September 30, 1978, \$42,000,000 for the fiscal year ending September 30, 1979, \$70,000,000 for the fiscal year ending September 30, 1980, \$80,000,000 for the fiscal year ending September 30, 1981, \$80,000,000 for the fiscal year ending September 30, 1982, \$70,000,000 for the fiscal year ending September 30, 1985, \$80,000,000 for the fiscal year ending September 30, 1986, \$80,000,000 for the fiscal year ending September 30, 1987, and \$80,000,000 for the fiscal year 1988.

(b) RESOURCE RECOVERY AND CONSERVATION PANELS.—Not less than 20 percent of the amount appropriated under subsection (a), or \$5,000,000 per fiscal year, whichever is less, shall be used only for purposes of Resource Recovery and Conservation Panels established under section 2003 (including travel expenses incurred by such panels in carrying out their functions under this Act).

(c) HAZARDOUS WASTE.—Not less than 30 percent of the amount appropriated under subsection (a) shall be used only for purposes of carrying out subtitle C of this Act (relating to hazardous waste) other than section 3011.

(d) STATE AND LOCAL SUPPORT.—Not less than 25 per centum of the total amount appropriated under this title, up to the amount authorized in section 4008(a)(1), shall be used only for purposes of support to State, regional, local, and interstate agencies in accordance with subtitle D of this Act other than section 4008(a)(2) or 4009.

(e) CRIMINAL INVESTIGATORS.—There is authorized to be appropriated to the Administrator \$3,246,000 for the fiscal year 1985, \$2,408,300 for the fiscal year 1986, \$2,529,000 for the fiscal year 1987, and \$2,529,000 for the fiscal year 1988 to be used—

(1) for additional officers or employees of the Environmental Protection Agency authorized by the Administrator to conduct criminal investigations (to investigate, or supervise the investigation of, any activity for which a criminal penalty is provided) under this Act; and

(2) for support costs for such additional officers or employees.

(f) UNDERGROUND STORAGE TANKS.—(1) There are authorized to be appropriated to the Administrator for the purpose of carrying out the provisions of subtitle I (relating to regulation of underground storage tanks), \$10,000,000 for each of the fiscal years 1985 through 1988.

(2) There is authorized to be appropriated \$25,000,000 for each of the fiscal years 1985 through 1988 to be used to make grants to the States for purposes of assisting the States in the development and implementation of approved State underground storage tank release detection, prevention, and correction programs under subtitle I.

[42 U.S.C. 6916]

#### OFFICE OF OMBUDSMAN

SEC. 2008. (a) ESTABLISHMENT; FUNCTIONS.—The Administrator shall establish an Office of Ombudsman, to be directed by an Ombudsman. It shall be the function of the Office of Ombudsman to receive individual complaints, grievances, requests for information submitted by any person with respect to any program or requirement under this Act.

(b) AUTHORITY TO RENDER ASSISTANCE.—The Ombudsman shall render assistance with respect to the complaints, grievances, and requests submitted to the Office of Ombudsman, and shall make appropriate recommendations to the Administrator.

(c) EFFECT ON PROCEDURES FOR GRIEVANCES, APPEALS, OR ADMINISTRATIVE MATTERS.—The establishment of the Office of Ombudsman shall not affect any procedures for grievances, appeals, or administrative matters in any other provision of this Act, any other provision of law, or any Federal regulation.

(d) TERMINATION.—The Office of the Ombudsman shall cease to exist 4 years after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

[42 U.S.C. 6917]

#### Subtitle C—Hazardous Waste Management

##### IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SEC. 3001. (a) CRITERIA FOR IDENTIFICATION OR LISTING.—Not later than eighteen months after the date of the enactment of this Act, the Administrator shall, after notice and opportunity for public hearing, and after consultation with appropriate Federal and State agencies, develop and promulgate criteria for identifying the characteristics of hazardous waste, and for listing hazardous waste, which should be subject to the provisions of this subtitle, taking into account toxicity, persistence, and degradability in nature, potential for accumulation in tissue, and other related factors such as flammability, corrosiveness, and other hazardous characteristics. Such criteria shall be revised from time to time as may be appropriate.

(b)(1) IDENTIFICATION AND LISTING.—Not later than eighteen months after the date of enactment of this section, and after notice and opportunity for public hearing, the Administrator shall promulgate regulations identifying the characteristics of hazardous waste,

and listing particular hazardous wastes (within the meaning of section 1004(5)), which shall be subject to the provisions of this subtitle. Such regulations shall be based on the criteria promulgated under subsection (a) and shall be revised from time to time thereafter as may be appropriate. The Administrator, in cooperation with the Agency for Toxic Substances and Disease Registry and the National Toxicology Program, shall also identify or list those hazardous wastes which shall be subject to the provisions of this subtitle solely because of the presence in such wastes of certain constituents (such as identified carcinogens, mutagens, or teratogens) at levels in excess of levels which endanger human health.

(2)(A) Notwithstanding the provisions of paragraph (1) of this subsection, drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil or natural gas or geothermal energy shall be subject only to existing State or Federal regulatory programs in lieu of subtitle C until at least 24 months after the date of enactment of the Solid Waste Disposal Act Amendments of 1980 and after promulgation of the regulations in accordance with subparagraphs (B) and (C) of this paragraph. It is the sense of the Congress that such State or Federal programs should include, for waste disposal sites which are to be closed, provisions requiring at least the following:

(i) The identification through surveying, platting, or other measures, together with recordation of such information on the public record, so as to assure that the location where such wastes are disposed of can be located in the future; except however, that no such surveying, platting, or other measure identifying the location of a disposal site for drilling fluids and associated wastes shall be required if the distance from the disposal site to the surveyed or platted location to the associated well is less than two hundred lineal feet; and

(ii) A chemical and physical analysis of a produced water and a composition of a drilling fluid suspected to contain a hazardous material, with such information to be acquired prior to closure and to be placed on the public record.

(B) Not later than six months after completion and submission of the study required by section 8002(m) of this Act, the Administrator shall, after public hearings and opportunity for comment, determine either to promulgate regulations under this subtitle for drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil or natural gas or geothermal energy or that such regulations are unwarranted. The Administrator shall publish his decision in the Federal Register accompanied by an explanation and justification of the reasons for it. In making the decision under this paragraph, the Administrator shall utilize the information developed or accumulated pursuant to the study required under section 8002(m).

(C) The Administrator shall transmit his decision, along with any regulations, if necessary, to both Houses of Congress. Such regulations shall take effect only when authorized by Act of Congress.

(3)(A) Notwithstanding the provisions of paragraph (1) of this subsection, each waste listed below shall, except as provided in subparagraph (B) of this paragraph, be subject only to regulation under other applicable provisions of Federal or State law in lieu of

this subtitle until at least six months after the date of submission of the applicable study required to be conducted under subsection (f), (n), (o), or (p) of section 8002 of this Act and after promulgation of regulations in accordance with subparagraph (C) of this paragraph:

(i) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

(ii) Solid waste from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore.

(iii) Cement kiln dust waste.

(B)(i) Owners and operators of disposal sites for wastes listed in subparagraph (A) may be required by the Administrator, through regulations prescribed under authority of section 2002 of this Act—

(I) as to disposal sites for such wastes which are to be closed, to identify the locations of such sites through surveying, platting, or other measures, together with recordation of such information on the public record, to assure that the locations where such wastes are disposed of are known and can be located in the future, and

(II) to provide chemical and physical analysis and composition of such wastes, based on available information, to be placed on the public record.

(ii)(I) In conducting any study under subsection (f), (n), (o), or (p) of section 8002 of this Act, any officer, employee, or authorized representative of the Environmental Protection Agency, duly designated by the Administrator, is authorized, at reasonable times and as reasonably necessary for the purposes of such study, to enter any establishment where any waste subject to such study is generated, stored, treated, disposed of, or transported from; to inspect, take samples, and conduct monitoring and testing; and to have access to and copy records relating to such waste. Each such inspection shall be commenced and completed with reasonable promptness. If the officer, employee, or authorized representative obtains any samples prior to leaving the premises, he shall give to the owner, operator, or agent in charge a receipt describing the sample obtained and if requested a portion of each such sample equal in volume or weight to the portion retained. If any analysis is made of such samples, or monitoring and testing performed, a copy of the results shall be furnished promptly to the owner, operator, or agent in charge.

(II) Any records, reports, or information obtained from any person under subclause (I) shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof, to which the Administrator has access under this subparagraph if made public, would divulge information entitled to protection under section 1905 of title 18 of the United States Code, the Administrator shall consider such information or particular portion thereof confidential in accordance with the purposes of that section, except that such record, report, document, or information may be disclosed to other officers, employees, or authorized representatives of the



United States concerned with carrying out this Act. Any person not subject to the provisions of section 1905 of title 18 of the United States Code who knowingly and willfully divulges or discloses any information entitled to protection under this subparagraph shall, upon conviction, be subject to a fine of not more than \$5,000 or to imprisonment not to exceed one year, or both.

(iii) The Administrator may prescribe regulations, under the authority of this Act, to prevent radiation exposure which presents an unreasonable risk to human health from the use in construction or land reclamation (with or without revegetation) of (I) solid waste from the extraction, beneficiation, and processing of phosphate rock or (II) overburden from the mining of uranium ore.

(iv) Whenever on the basis of any information the Administrator determines that any person is in violation of any requirement of this subparagraph, the Administrator shall give notice to the violator of his failure to comply with such requirement. If such violation extends beyond the thirtieth day after the Administrator's notification, the Administrator may issue an order requiring compliance within a specified time period or the Administrator may commence a civil action in the United States district court in the district in which the violation occurred for appropriate relief, including a temporary or permanent injunction.

(C) Not later than six months after the date of submission of the applicable study required to be conducted under subsection (f), (n), (o), or (p), of section 8002 of this Act, the Administrator shall, after public hearings and opportunity for comment, either determine to promulgate regulations under this subtitle for each waste listed in subparagraph (A) of this paragraph or determine that such regulations are unwarranted. The Administrator shall publish his determination, which shall be based on information developed or accumulated pursuant to such study, public hearings, and comment, in the Federal Register accompanied by an explanation and justification of the reasons for it.

(c) PETITION BY STATE GOVERNOR.—At any time after the date eighteen months after the enactment of this title, the Governor of any State may petition the Administrator to identify or list a material as a hazardous waste. The Administrator shall act upon such petition within ninety days following his receipt thereof and shall notify the Governor of such action. If the Administrator denies such petition because of financial considerations, in providing such notice to the Governor he shall include a statement concerning such considerations.

(d) SMALL QUANTITY GENERATOR WASTE.—(1) By March 31, 1986, the Administrator shall promulgate standards under sections 3002, 3003, and 3004 for hazardous waste generated by a generator in a total quantity of hazardous waste greater than one hundred kilograms but less than one thousand kilograms during a calendar month.

(2) The standards referred to in paragraph (1), including standards applicable to the legitimate use, reuse, recycling, and reclamation of such wastes, may vary from the standards applicable to hazardous waste generated by larger quantity generators, but such standards shall be sufficient to protect human health and the environment.

(3) Not later than two hundred and seventy days after the enactment of the Hazardous and Solid Waste Amendments of 1984 any hazardous waste which is part of a total quantity generated by a generator generating greater than one hundred kilograms but less than one thousand kilograms during one calendar month and which is shipped off the premises on which such waste is generated shall be accompanied by a copy of the Environmental Protection Agency Uniform Hazardous Waste Manifest form signed by the generator. This form shall contain the following information:

- (A) the name and address of the generator of the waste;
- (B) the United States Department of Transportation description of the waste, including the proper shipping name, hazard class, and identification number (UN/NA), if applicable;
- (C) the number and type of containers;
- (D) the quantity of waste being transported; and
- (E) the name and address of the facility designated to receive the waste.

If subparagraph (B) is not applicable, in lieu of the description referred to in such subparagraph (B), the form shall contain the Environmental Protection Agency identification number, or a generic description of the waste, or a description of the waste by hazardous waste characteristic. Additional requirements related to the manifest form shall apply only if determined necessary by the Administrator to protect human health and the environment.

(4) The Administrator's responsibility under this subtitle to protect human health and the environment may require the promulgation of standards under this subtitle for hazardous wastes which are generated by any generator who does not generate more than one hundred kilograms of hazardous waste in a calendar month.

(5) Until the effective date of standards required to be promulgated under paragraph (1), any hazardous waste identified or listed under this section generated by any generator during any calendar month in a total quantity greater than one hundred kilograms but less than one thousand kilograms, which is not treated, stored, or disposed of at a hazardous waste treatment, storage, or disposal facility with a permit under section 3005, shall be disposed of only in a facility which is permitted, licensed, or registered by a State to manage municipal or industrial solid waste.

(6) Standards promulgated as provided in paragraph (1) shall, at a minimum, require that all treatment, storage, or disposal of hazardous wastes generated by generators referred to in paragraph (1) shall occur at a facility with interim status or a permit under this subtitle, except that onsite storage of hazardous waste generated by a generator generating a total quantity of hazardous waste greater than one hundred kilograms, but less than one thousand kilograms during a calendar month, may occur without the requirement of a permit for up to one hundred and eighty days. Such onsite storage may occur without the requirement of a permit for not more than six thousand kilograms for up to two hundred and seventy days if such generator must ship or haul such waste over two hundred miles.

(7)(A) Nothing in this subsection shall be construed to affect or impair the validity of regulations promulgated by the Secretary of

Transportation pursuant to the Hazardous Materials Transportation Act.

(B) Nothing in this subsection shall be construed to affect, modify, or render invalid any requirements in regulations promulgated prior to January 1, 1983 applicable to any acutely hazardous waste identified or listed under section 3001 which is generated by any generator during any calendar month in a total quantity less than one thousand kilograms.

(8) Effective March 31, 1986, unless the Administrator promulgates standards as provided in paragraph (1) of this subsection prior to such date, hazardous waste generated by any generator in a total quantity greater than one hundred kilograms but less than one thousand kilograms during a calendar month shall be subject to the following requirements until the standards referred to in paragraph (1) of this subsection have become effective:

(A) the notice requirements of paragraph (3) of this subsection shall apply and in addition, the information provided in the form shall include the name of the waste transporters and the name and address of the facility designated to receive the waste;

(B) except in the case of the onsite storage referred to in paragraph (6) of this subsection, the treatment, storage, or disposal of such waste shall occur at a facility with interim status or a permit under this subtitle;

(C) generators of such waste shall file manifest exception reports as required of generators producing greater amounts of hazardous waste per month except that such reports shall be filed by January 31, for any waste shipment occurring in the last half of the preceding calendar year, and by July 31, for any waste shipment occurring in the first half of the calendar year; and

(D) generators of such waste shall retain for three years a copy of the manifest signed by the designated facility that has received the waste.

Nothing in this paragraph shall be construed as a determination of the standards appropriate under paragraph (1).

(9) The last sentence of section 3010(b) shall not apply to regulations promulgated under this subsection.

(e) SPECIFIED WASTES.—(1) Not later than 6 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall, where appropriate, list under subsection (b)(1), additional wastes containing chlorinated dioxins or chlorinated-dibenzofurans. Not later than one year after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall, where appropriate, list under subsection (b)(1) wastes containing remaining halogenated dioxins and halogenated-dibenzofurans.

(2) Not later than fifteen months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall make a determination of whether or not to list under subsection (b)(1) the following wastes: Chlorinated Aliphatics, Dioxin, Dimethyl Hydrazine, TDI (toluene diisocyanate), Carbamates, Bromacil, Linuron, Organo-bromines, solvents, refining wastes, chlorinated aromatics, dyes and pigments, inorganic

chemical industry wastes, lithium batteries, coke byproducts, paint production wastes, and coal slurry pipeline effluent.

(f) DELISTING PROCEDURES.—(1) When evaluating a petition to exclude a waste generated at a particular facility from listing under this section, the Administrator shall consider factors (including additional constituents) other than those for which the waste was listed if the Administrator has a reasonable basis to believe that such additional factors could cause the waste to be a hazardous waste. The Administrator shall provide notice and opportunity for comment on these additional factors before granting or denying such petition.

(2)(A) To the maximum extent practicable the Administrator shall publish in the Federal Register a proposal to grant or deny a petition referred to in paragraph (1) within twelve months after receiving a complete application to exclude a waste generated at a particular facility from being regulated as a hazardous waste and shall grant or deny such a petition within twenty-four months after receiving a complete application.

(B) The temporary granting of such a petition prior to the enactment of the Hazardous and Solid Waste Amendments of 1984 without the opportunity for public comment and the full consideration of such comments shall not continue for more than twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984. If a final decision to grant or deny such a petition has not been promulgated after notice and opportunity for public comment within the time limit prescribed by the preceding sentence, any such temporary granting of such petition shall cease to be in effect.

(g) EP TOXICITY.—Not later than twenty-eight months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 the Administrator shall examine the deficiencies of the extraction procedure toxicity characteristic as a predictor of the leaching potential of wastes and make changes in the extraction procedure toxicity characteristic, including changes in the leaching media, as are necessary to insure that it accurately predicts the leaching potential of wastes which pose a threat to human health and the environment when mismanaged.

(h) ADDITIONAL CHARACTERISTICS.—Not later than two years after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate regulations under this section identifying additional characteristics of hazardous waste, including measures or indicators of toxicity.

(i) CLARIFICATION OF HOUSEHOLD WASTE EXCLUSION.—A resource recovery facility recovering energy from the mass burning of municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if—

(1) such facility—

(A) receives and burns only—

(i) household waste (from single and multiple dwellings, hotels, motels, and other residential sources), and



(ii) solid waste from commercial or industrial sources that does not contain hazardous waste identified or listed under this section, and

(B) does not accept hazardous wastes identified or listed under this section, and

(2) the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

(j) METHAMPHETAMINE PRODUCTION.—Not later than every 24 months, the Administrator shall submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Environment and Public Works of the Senate a report setting forth information collected by the Administrator from law enforcement agencies, States, and other relevant stakeholders that identifies the byproducts of the methamphetamine production process and whether the Administrator considers each of the byproducts to be a hazardous waste pursuant to this section and relevant regulations.

【42 U.S.C. 6921】

#### STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

SEC. 3002. (a) IN GENERAL.—Not later than eighteen months after the date of the enactment of this section, and after notice and opportunity for public hearings and after consultation with appropriate Federal and State agencies, the Administrator shall promulgate regulations establishing such standards, applicable to generators of hazardous waste identified or listed under this subtitle, as may be necessary to protect human health and the environment. Such standards shall establish requirements respecting—

(1) recordkeeping practices that accurately identify the quantities of such hazardous waste generated, the constituents thereof which are significant in quantity or in potential harm to human health or the environment, and the disposition of such wastes;

(2) labeling practices for any containers used for the storage, transport, or disposal of such hazardous waste such as will identify accurately such waste;

(3) use of appropriate containers for such hazardous waste;

(4) furnishing of information on the general chemical composition of such hazardous waste to persons transporting, treating, storing, or disposing of such wastes;

(5) use of a manifest system and any other reasonable means necessary to assure that all such hazardous waste generated is designated for treatment, storage, or disposal in, and arrives at, treatment, storage, or disposal facilities (other than facilities on the premises where the waste is generated) for which a permit has been issued as provided in this subtitle, or pursuant to title I of the Marine Protection, Research, and Sanctuaries Act (86 Stat. 1052); and

(6) submission of reports to the Administrator (or the State agency in any case in which such agency carries out a permit

program pursuant to this subtitle) at least once every two years, setting out—

(A) the quantities and nature of hazardous waste identified or listed under this subtitle that he has generated during the year;

(B) the disposition of all hazardous waste reported under subparagraph (A);

(C) the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and

(D) the changes in volume and toxicity of waste actually achieved during the year in question in comparison with previous years, to the extent such information is available for years prior to enactment of the Hazardous and Solid Waste Amendments of 1984.

(b) WASTE MINIMIZATION.—Effective September 1, 1985, the manifest required by subsection (a)(5) shall contain a certification by the generator that—

(1) the generator of the hazardous waste has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable; and

(2) the proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment.

[42 U.S.C. 6922]

#### STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE

SEC. 3003. (a) STANDARDS.—Not later than eighteen months after the date of enactment of this section, and after opportunity for public hearings, the Administrator, after consultation with the Secretary of Transportation and the States, shall promulgate regulations establishing such standards, applicable to transporters of hazardous waste identified or listed under this subtitle, as may be necessary to protect human health and the environment. Such standards shall include but need not be limited to requirements respecting—

(1) recordkeeping concerning such hazardous waste transported, and their source and delivery points;

(2) transportation of such waste only if properly labeled;

(3) compliance with the manifest system referred to in section 3002(5);<sup>5</sup> and

(4) transportation of all such hazardous waste only to the hazardous waste treatment, storage, or disposal facilities which the shipper designates on the manifest form to be a facility holding a permit issued under this subtitle, or pursuant to title I of the Marine Protection, Research, and Sanctuaries Act (86 Stat. 1052).

(b) COORDINATION WITH REGULATIONS OF SECRETARY OF TRANSPORTATION.—In case of any hazardous waste identified or listed under this subtitle which is subject to the Hazardous Mate-

<sup>5</sup> The reference in section 3003(a)(3) to section 3002(5) should refer to section 3002(a)(5).

rials Transportation Act (88 Stat. 2156; 49 U.S.C. 1801 and following),<sup>6</sup> the regulations promulgated by the Administrator under this section shall be consistent with the requirements of such Act and the regulations thereunder. The Administrator is authorized to make recommendations to the Secretary of Transportation respecting the regulations of such hazardous waste under the Hazardous Materials Transportation Act and for addition of materials to be covered by such Act.

(c) FUEL FROM HAZARDOUS WASTE.—Not later than two years after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, and after opportunity for public hearing, the Administrator shall promulgate regulations establishing standards, applicable to transporters of fuel produced (1) from any hazardous waste identified or listed under section 3001, or (2) from any hazardous waste identified or listed under section 3001 and any other material, as may be necessary to protect human health and the environment. Such standards may include any of the requirements set forth in paragraphs (1) through (4) of subsection (a) as may be appropriate.

■42 U.S.C. 6923■

STANDARDS APPLICABLE TO OWNERS AND OPERATORS OF HAZARDOUS  
WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

SEC. 3004. (a) IN GENERAL.—Not later than eighteen months after the date of enactment of this section, and after opportunity for public hearings and after consultation with appropriate Federal and State agencies, the Administrator shall promulgate regulations establishing such performance standards, applicable to owners and operators of facilities for the treatment, storage, or disposal of hazardous waste identified or listed under this subtitle, as may be necessary to protect human health and the environment. In establishing such standards the Administrator shall, where appropriate, distinguish in such standards between requirements appropriate for new facilities and for facilities in existence on the date of promulgation of such regulations. Such standards shall include, but need not be limited to, requirements respecting—

(1) maintaining records of all hazardous wastes identified or listed under this title which is treated, stored, or disposed of, as the case may be, and the manner in which such wastes were treated, stored, or disposed of;

(2) satisfactory reporting, monitoring, and inspection and compliance with the manifest system referred to in section 3002(5);<sup>7</sup>

(3) treatment, storage, or disposal of all such waste received by the facility pursuant to such operating methods, techniques, and practices as may be satisfactory to the Administrator;

(4) the location, design, and construction of such hazardous waste treatment, disposal, or storage facilities;

<sup>6</sup>The reference in section 3003(b) to the Hazardous Materials Transportation Act is deemed to refer to chapter 51 of title 49, United States Code, pursuant to section 6(b) of Public Law 103-272.

<sup>7</sup>The reference in section 3004(a)(2) to section 3002(5) should refer to section 3002(a)(5).

(5) contingency plans for effective action to minimize anticipated damage from any treatment, storage, or disposal of any such hazardous waste;

(6) the maintenance of operation of such facilities and requiring such additional qualifications as to ownership, continuity of operation, training for personnel, and financial responsibility (including financial responsibility for corrective action) as may be necessary or desirable; and

(7) compliance with the requirements of section 3005 respecting permits for treatment, storage, or disposal.

No private entity shall be precluded by reason of criteria established under paragraph (6) from the ownership or operation of facilities providing hazardous waste treatment, storage, or disposal services where such entity can provide assurances of financial responsibility and continuity of operation consistent with the degree and duration of risks associated with the treatment, storage, or disposal of specified hazardous waste.

(b) SALT DOME FORMATIONS, SALT BED FORMATIONS, UNDERGROUND MINES AND CAVES.—(1) Effective on the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine, or cave is prohibited until such time as—

(A) the Administrator has determined, after notice and opportunity for hearings on the record in the affected areas, that such placement is protective of human health and the environment;

(B) the Administrator has promulgated performance and permitting standards for such facilities under this subtitle, and;

(C) a permit has been issued under section 3005(c) for the facility concerned.

(2) Effective on the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the placement of any hazardous waste other than a hazardous waste referred to in paragraph (1) in a salt dome formation, salt bed formation, underground mine, or cave is prohibited until such time as a permit has been issued under section 3005(c) for the facility concerned.

(3) No determination made by the Administrator under subsection (d), (e), or (g) of this section regarding any hazardous waste to which such subsection (d), (e), or (g) applies shall affect the prohibition contained in paragraph (1) or (2) of this subsection.

(4) Nothing in this subsection shall apply to the Department of Energy Waste Isolation Pilot Project in New Mexico.

(c) LIQUIDS IN LANDFILLS.—(1) Effective 6 months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the placement of bulk or noncontainerized liquid hazardous waste or free liquids contained in hazardous waste (whether or not absorbents have been added) in any landfill is prohibited. Prior to such date the requirements (as in effect on April 30, 1983) promulgated under this section by the Administrator regarding liquid hazardous waste shall remain in force and effect to the extent such requirements are applicable to the placement of



bulk or noncontainerized liquid hazardous waste, or free liquids contained in hazardous waste, in landfills.

(2) Not later than fifteen months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate final regulations which—

(A) minimize the disposal of containerized liquid hazardous waste in landfills, and

(B) minimize the presence of free liquids in containerized hazardous waste to be disposed of in landfills.

Such regulations shall also prohibit the disposal in landfills of liquids that have been absorbed in materials that biodegrade or that release liquids when compressed as might occur during routine landfill operations. Prior to the date on which such final regulations take effect, the requirements (as in effect on April 30, 1983) promulgated under this section by the Administrator shall remain in force and effect to the extent such requirements are applicable to the disposal of containerized liquid hazardous waste, or free liquids contained in hazardous waste, in landfills.

(3) Effective twelve months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the placement of any liquid which is not a hazardous waste in a landfill for which a permit is required under section 3005(c) or which is operating pursuant to interim status granted under section 3005(e) is prohibited unless the owner or operator of such landfill demonstrates to the Administrator, or the Administrator determines, that—

(A) the only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted under section 3005(c) or operating pursuant to interim status under section 3005(e), which contains, or may reasonably be anticipated to contain, hazardous waste; and

(B) placement in such owner or operator's landfill will not present a risk of contamination of any underground source of drinking water.

As used in subparagraph (B), the term "underground source of drinking water" has the same meaning as provided in regulations under the Safe Drinking Water Act (title XIV of the Public Health Service Act).

(4) No determination made by the Administrator under subsection (d), (e), or (g) of this section regarding any hazardous waste to which such subsection (d), (e), or (g) applies shall affect the prohibition contained in paragraph (1) of this subsection.

(d) PROHIBITIONS ON LAND DISPOSAL OF SPECIFIED WASTES.—

(1) Effective 32 months after the enactment of the Hazardous and Solid Waste Amendments of 1984 (except as provided in subsection (f) with respect to underground injection into deep injection wells), the land disposal of the hazardous wastes referred to in paragraph (2) is prohibited unless the Administrator determines the prohibition on one or more methods of land disposal of such waste is not required in order to protect human health and the environment for as long as the waste remains hazardous, taking into account—

(A) the long-term uncertainties associated with land disposal,

(B) the goal of managing hazardous waste in an appropriate manner in the first instance, and

(C) the persistence, toxicity, mobility, and propensity to bioaccumulate of such hazardous wastes and their hazardous constituents.

For the purposes of this paragraph, a method of land disposal may not be determined to be protective of human health and the environment for a hazardous waste referred to in paragraph (2) (other than a hazardous waste which has complied with the pretreatment regulations promulgated under subsection (m)), unless, upon application by an interested person, it has been demonstrated to the Administrator, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous.

(2) Paragraph (1) applies to the following hazardous wastes listed or identified under section 3001:

(A) Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 mg/l.

(B) Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing the following metals (or elements) or compounds of these metals (or elements) at concentrations greater than or equal to those specified below:

- (i) arsenic and/or compounds (as As) 500 mg/l;
- (ii) cadmium and/or compounds (as Cd) 100 mg/l;
- (iii) chromium (VI and/or compounds (as Cr VI)) 500 mg/l;
- (iv) lead and/or compounds (as Pb) 500 mg/l;
- (v) mercury and/or compounds (as Hg) 20 mg/l;
- (vi) nickel and/or compounds (as Ni) 134 mg/l;
- (vii) selenium and/or compounds (as Se) 100 mg/l; and
- (viii) thallium and/or compounds (as Th) 130 mg/l.

(C) Liquid hazardous waste having a pH less than or equal to two (2.0).

(D) Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 50 ppm.

(E) Hazardous wastes containing halogenated organic compounds in total concentration greater than or equal to 1,000 mg/kg.

When necessary to protect human health and the environment, the Administrator shall substitute more stringent concentration levels than the levels specified in subparagraphs (A) through (E).

(3) During the period ending forty-eight months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, this subsection shall not apply to any disposal of contaminated soil or debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 or a corrective action required under this subtitle.

(e) SOLVENTS AND DIOXINS.—(1) Effective twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 (except as provided in subsection (f) with respect to underground injection into deep injection wells), the land disposal of the hazardous wastes referred to in paragraph (2) is

prohibited unless the Administrator determines the prohibition of one or more methods of land disposal of such waste is not required in order to protect human health and the environment for as long as the waste remains hazardous, taking into account the factors referred to in subparagraph (A) through (C) of subsection (d)(1). For the purposes of this paragraph, a method of land disposal may not be determined to be protective of human health and the environment for a hazardous waste referred to in paragraph (2) (other than a hazardous waste which has complied with the pretreatment regulations promulgated under subsection (m)), unless upon application by an interested person it has been demonstrated to the Administrator, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous.

(2) The hazardous wastes to which the prohibition under paragraph (1) applies are as follows—

(A) dioxin-containing hazardous wastes numbered F020, F021, F022, and F023 (as referred to in the proposed rule published by the Administrator in the Federal Register for April 4, 1983), and

(B) those hazardous wastes numbered F001, F002, F003, F004, and F005 in regulations promulgated by the Administrator under section 3001 (40 C.F.R. 261.31 (July 1, 1983)), as those regulations are in effect on July 1, 1983.

(3) During the period ending forty-eight months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, this subsection shall not apply to any disposal of contaminated soil or debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 or a corrective action required under this subtitle.

(f) DISPOSAL INTO DEEP INJECTION WELLS; SPECIFIED SUBSECTION (d) WASTES; SOLVENTS AND DIOXINS.—(1) Not later than forty-five months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall complete a review of the disposal of all hazardous wastes referred to in paragraph (2) of subsection (d) and in paragraph (2) of subsection (e) by underground injection into deep injection wells.

(2) Within forty-five months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall make a determination regarding the disposal by underground injection into deep injection wells of the hazardous wastes referred to in paragraph (2) of subsection (d) and the hazardous wastes referred to in paragraph (2) of subsection (e). The Administrator shall promulgate final regulations prohibiting the disposal of such wastes into such wells if it may reasonably be determined that such disposal may not be protective of human health and the environment for as long as the waste remains hazardous, taking into account the factors referred to in subparagraphs (A) through (C) of subsection (d)(1). In promulgating such regulations, the Administrator shall consider each hazardous waste referred to in paragraph (2) of subsection (d) or in paragraph (2) of subsection (e) which is prohibited from disposal into such wells by any State.

(3) If the Administrator fails to make a determination under paragraph (2) for any hazardous waste referred to in paragraph (2) of subsection (d) or in paragraph (2) of subsection (e) within forty-five months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, such hazardous waste shall be prohibited from disposal into any deep injection well.

(4) As used in this subsection, the term “deep injection well” means a well used for the underground injection of hazardous waste other than a well to which section 7010(a)<sup>8</sup> applies.

(g) ADDITIONAL LAND DISPOSAL PROHIBITION DETERMINATIONS.—(1) Not later than twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall submit a schedule to Congress for—

(A) reviewing all hazardous wastes listed (as of the date of the enactment of the Hazardous and Solid Waste Amendments of 1984) under section 3001 other than those wastes which are referred to in subsection (d) or (e); and

(B) taking action under paragraph (5) of this subsection with respect to each such hazardous waste.

(2) The Administrator shall base the schedule on a ranking of such listed wastes considering their intrinsic hazard and their volume such that decisions regarding the land disposal of high volume hazardous wastes with high intrinsic hazard shall, to the maximum extent possible, be made by the date forty-five months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984. Decisions regarding low volume hazardous wastes with lower intrinsic hazard shall be made by the date sixty-six months after such date of enactment.

(3) The preparation and submission of the schedule under this subsection shall not be subject to the Paperwork Reduction Act of 1980. No hearing on the record shall be required for purposes of preparation or submission of the schedule. The schedule shall not be subject to judicial review.

(4) The schedule under this subsection shall require that the Administrator shall promulgate regulations in accordance with paragraph (5) or make a determination under paragraph (5)—

(A) for at least one-third of all hazardous wastes referred to in paragraph (1) by the date forty-five months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984;

(B) for at least two-thirds of all such listed wastes by the date fifty-five months after the date of enactment of such Amendments; and

(C) for all such listed wastes and for all hazardous wastes identified under 3001 by the date sixty-six months after the date of enactment of such Amendments.

In the case of any hazardous waste identified or listed under section 3001 after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall determine whether such waste shall be prohibited from one or more methods

<sup>8</sup>The reference in section 3004(h)(4) to section 7010(a) should be a reference to section 3020(a), pursuant to the renumbering made by section 201(c) of Public Law 99-339.



of land disposal in accordance with paragraph (5) within six months after the date of such identification or listing.

(5) Not later than the date specified in the schedule published under this subsection, the Administrator shall promulgate final regulations prohibiting one or more methods of land disposal of the hazardous wastes listed on such schedule except for methods of land disposal which the Administrator determines will be protective of human health and the environment for as long as the waste remains hazardous, taking into account the factors referred to in subparagraphs (A) through (C) of subsection (d)(1). For the purposes of this paragraph, a method of land disposal may not be determined to be protective of human health and the environment (except with respect to a hazardous waste which has complied with the pretreatment regulations promulgated under subsection (m)) unless, upon application by an interested person, it has been demonstrated to the Administrator, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous.

(6)(A) If the Administrator fails (by the date forty-five months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984) to promulgate regulations or make a determination under paragraph (5) for any hazardous waste which is included in the first one-third of the schedule published under this subsection, such hazardous waste may be disposed of in a landfill or surface impoundment only if—

(i) such facility is in compliance with the requirements of subsection (o) which are applicable to new facilities (relating to minimum technological requirements); and

(ii) prior to such disposal, the generator has certified to the Administrator that such generator has investigated the availability of treatment capacity and has determined that the use of such landfill or surface impoundment is the only practical alternative to treatment currently available to the generator.

The prohibition contained in this subparagraph shall continue to apply until the Administrator promulgates regulations or makes a determination under paragraph (5) for the waste concerned.

(B) If the Administrator fails (by the date 55 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984) to promulgate regulations or make a determination under paragraph (5) for any hazardous waste which is included in the first two-thirds of the schedule published under this subsection, such hazardous waste may be disposed of in a landfill or surface impoundment only if—

(i) such facility is in compliance with the requirements of subsection (o) which are applicable to new facilities (relating to minimum technological requirements); and

(ii) prior to such disposal, the generator has certified to the Administrator that such generator has investigated the availability of treatment capacity and has determined that the use of such landfill or surface impoundment is the only practical alternative to treatment currently available to the generator.

The prohibition contained in this subparagraph shall continue to apply until the Administrator promulgates regulations or makes a determination under paragraph (5) for the waste concerned.

(C) If the Administrator fails to promulgate regulations, or make a determination under paragraph (5) for any hazardous waste referred to in paragraph (1) within 66 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, such hazardous waste shall be prohibited from land disposal.

(7)<sup>9</sup> Solid waste identified as hazardous based solely on one or more characteristics shall not be subject to this subsection, any prohibitions under subsection (d), (e), or (f), or any requirement promulgated under subsection (m) (other than any applicable specific methods of treatment, as provided in paragraph (8)) if the waste—

(A) is treated in a treatment system that subsequently discharges to waters of the United States pursuant to a permit issued under section 402 of the Federal Water Pollution Control Act (commonly known as the “Clean Water Act”) (33 U.S.C. 1342), treated for the purposes of the pretreatment requirements of section 307 of the Clean Water Act (33 U.S.C. 1317), or treated in a zero discharge system that, prior to any permanent land disposal, engages in treatment that is equivalent to treatment required under section 402 of the Clean Water Act (33 U.S.C. 1342) for discharges to waters of the United States, as determined by the Administrator; and

(B) no longer exhibits a hazardous characteristic prior to management in any land-based solid waste management unit.

(8)<sup>10</sup> Solid waste that otherwise qualifies under paragraph (7) shall nevertheless be required to meet any applicable specific methods of treatment specified for such waste by the Administrator under subsection (m), including those specified in the rule promulgated by the Administrator June 1, 1990, prior to management in a land-based unit as part of a treatment system specified in paragraph (7)(A). No solid waste may qualify under paragraph (7) that would generate toxic gases, vapors, or fumes due to the presence of cyanide when exposed to pH conditions between 2.0 and 12.5.

(9)<sup>10</sup> Solid waste identified as hazardous based on one or more characteristics alone shall not be subject to this subsection, any prohibitions under subsection (d), (e), or (f), or any requirement promulgated under subsection (m) if the waste no longer exhibits a hazardous characteristic at the point of injection in any Class I injection well permitted under section 1422 of title XIV of the Public Health Service Act (42 U.S.C. 300h–1).

(10)<sup>10</sup> Not later than five years after the date of enactment of this paragraph, the Administrator shall complete a study of hazardous waste managed pursuant to paragraph (7) or (9) to characterize the risks to human health or the environ-

<sup>9</sup>Indentation so in law.

<sup>10</sup>Indentation so in law.

ment associated with such management. In conducting this study, the Administrator shall evaluate the extent to which risks are adequately addressed under existing State or Federal programs and whether unaddressed risks could be better addressed under such laws or programs. Upon receipt of additional information or upon completion of such study and as necessary to protect human health and the environment, the Administrator may impose additional requirements under existing Federal laws, including subsection (m)(1), or rely on other State or Federal programs or authorities to address such risks. In promulgating any treatment standards pursuant to subsection (m)(1) under the previous sentence, the Administrator shall take into account the extent to which treatment is occurring in land-based units as part of a treatment system specified in paragraph (7)(A).

(11)<sup>10</sup> Nothing in paragraph (7) or (9) shall be interpreted or applied to restrict any inspection or enforcement authority under the provisions of this Act.

(h) VARIANCES FROM LAND DISPOSAL PROHIBITIONS.—(1) A prohibition in regulations under subsection (d), (e), (f), or (g) shall be effective immediately upon promulgation.

(2) The Administrator may establish an effective date different from the effective date which would otherwise apply under subsection (d), (e), (f), or (g) with respect to a specific hazardous waste which is subject to a prohibition under subsection (d), (e), (f), or (g) or under regulations under subsection (d), (e), (f), or (g). Any such other effective date shall be established on the basis of the earliest date on which adequate alternative treatment, recovery, or disposal capacity which protects human health and the environment will be available. Any such other effective date shall in no event be later than 2 years after the effective date of the prohibition which would otherwise apply under subsection (d), (e), (f), or (g).

(3) The Administrator, after notice and opportunity for comment and after consultation with appropriate State agencies in all affected States, may on a case-by-case basis grant an extension of the effective date which would otherwise apply under subsection (d), (e), (f), or (g) or under paragraph (2) for up to one year, where the applicant demonstrates that there is a binding contractual commitment to construct or otherwise provide such alternative capacity but due to circumstances beyond the control of such applicant such alternative capacity cannot reasonably be made available by such effective date. Such extension shall be renewable once for no more than one additional year.

(4) Whenever another effective date (hereinafter referred to as a “variance”) is established under paragraph (2), or an extension is granted under paragraph (3), with respect to any hazardous waste, during the period for which such variance or extension is in effect, such hazardous waste may be disposed of in a landfill or surface impoundment only if such facility is in compliance with the requirements of subsection (o).

(i) PUBLICATION OF DETERMINATION.—If the Administrator determines that a method of land disposal will be protective of human health and the environment, he shall promptly publish in

the Federal Register notice of such determination, together with an explanation of the basis for such determination.

(j) **STORAGE OF HAZARDOUS WASTE PROHIBITED FROM LAND DISPOSAL.**—In the case of any hazardous waste which is prohibited from one or more methods of land disposal under this section (or under regulations promulgated by the Administrator under any provision of this section) the storage of such hazardous waste is prohibited unless such storage is solely for the purpose of the accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment or disposal.

(k) **DEFINITION OF LAND DISPOSAL.**—For the purposes of this section, the term “land disposal”, when used with respect to a specified hazardous waste, shall be deemed to include, but not be limited to, any placement of such hazardous waste in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave.

(l) **BAN ON DUST SUPPRESSION.**—The use of waste or used oil or other material, which is contaminated or mixed with dioxin or any other hazardous waste identified or listed under section 3001 (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment is prohibited.

(m) **TREATMENT STANDARDS FOR WASTES SUBJECT TO LAND DISPOSAL PROHIBITION.**—(1) Simultaneously with the promulgation of regulations under subsection (d), (e), (f), or (g) prohibiting one or more methods of land disposal of a particular hazardous waste, and as appropriate thereafter, the Administrator shall, after notice and an opportunity for hearings and after consultation with appropriate Federal and State agencies, promulgate regulations specifying those levels or methods of treatment, if any, which substantially diminish the toxicity of the waste or substantially reduce the likelihood of migration of hazardous constituents from the waste so that short-term and long-term threats to human health and the environment are minimized.

(2) If such hazardous waste has been treated to the level or by a method specified in regulations promulgated under this subsection, such waste or residue thereof shall not be subject to any prohibition promulgated under subsection (d), (e), (f), or (g) and may be disposed of in a land disposal facility which meets the requirements of this subtitle. Any regulation promulgated under this subsection for a particular hazardous waste shall become effective on the same date as any applicable prohibition promulgated under subsection (d), (e), (f), or (g).

(n) **AIR EMISSIONS.**—Not later than thirty months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate such regulations for the monitoring and control of air emissions at hazardous waste treatment, storage, and disposal facilities, including but not limited to open tanks, surface impoundments, and landfills, as may be necessary to protect human health and the environment.

(o) **MINIMUM TECHNOLOGICAL REQUIREMENTS.**—(1) The regulations under subsection (a) of this section shall be revised from time to time to take into account improvements in the technology of control and measurement. At a minimum, such regulations shall re-



quire, and a permit issued pursuant to section 3005(c) after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 by the Administrator or a State shall require—

(A) for each new landfill or surface impoundment, each new landfill or surface impoundment unit at an existing facility, each replacement of an existing landfill or surface impoundment unit, and each lateral expansion of an existing landfill or surface impoundment unit, for which an application for a final determination regarding issuance of a permit under section 3005(c) is received after the date of enactment of the Hazardous and Solid Waste Amendments of 1984—

(i) the installation of two or more liners and a leachate collection system above (in the case of a landfill) and between such liners; and

(ii) ground water monitoring; and

(B) for each incinerator which receives a permit under section 3005(c) after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the attainment of the minimum destruction and removal efficiency required by regulations in effect on June 24, 1982.

The requirements of this paragraph shall apply with respect to all waste received after the issuance of the permit.

(2) Paragraph (1)(A)(i) shall not apply if the owner or operator demonstrates to the Administrator, and the Administrator finds for such landfill or surface impoundment, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the ground water or surface water at least as effectively as such liners and leachate collection systems.

(3) The double-liner requirement set forth in paragraph (1)(A)(i) may be waived by the Administrator for any monofill, if—

(A) such monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand,

(B) such wastes do not contain constituents which would render the wastes hazardous for reasons other than the Extraction Procedure (“EP”) toxicity characteristics set forth in regulations under this subtitle, and

(C) such monofill meets the same requirements as are applicable in the case of a waiver under section 3005(j) (2) or (4).

(4)(A) Not later than thirty months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate standards requiring that new landfill units, surface impoundment units, waste piles, underground tanks and land treatment units for the storage, treatment, or disposal of hazardous waste identified or listed under section 3001 shall be required to utilize approved leak detection systems.

(B) For the purposes of subparagraph (A)—

(i) the term “approved leak detection system” means a system or technology which the Administrator determines to be capable of detecting leaks of hazardous constituents at the earliest practicable time; and

(ii) the term “new units” means units on which construction commences after the date of promulgation of regulations under this paragraph.

(5)(A) The Administrator shall promulgate regulations or issue guidance documents implementing the requirements of paragraph (1)(A) within two years after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984.

(B) Until the effective date of such regulations or guidance documents, the requirement for the installation of two or more liners may be satisfied by the installation of a top liner designed, operated, and constructed of materials to prevent the migration of any constituent into such liner during the period such facility remains in operation (including any post-closure monitoring period), and a lower liner designed, operated<sup>11</sup> and constructed to prevent the migration of any constituent through such liner during such period. For the purpose of the preceding sentence, a lower liner shall be deemed to satisfy such requirement if it is constructed of at least a 3-foot thick layer of recompacted clay or other natural material with a permeability of no more than  $110^{-7}$  centimeter per second.

(6) Any permit under section 3005 which is issued for a landfill located within the State of Alabama shall require the installation of two or more liners and a leachate collection system above and between such liners, notwithstanding any other provision of this Act.

(7) In addition to the requirements set forth in this subsection, the regulations referred to in paragraph (1) shall specify criteria for the acceptable location of new and existing treatment, storage, or disposal facilities as necessary to protect human health and the environment. Within 18 months after the enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall publish guidance criteria identifying areas of vulnerable hydrogeology.

(p) GROUND WATER MONITORING.—The standards under this section concerning ground water monitoring which are applicable to surface impoundments, waste piles, land treatment units, and landfills shall apply to such a facility whether or not—

(1) the facility is located above the seasonal high water table;

(2) two liners and a leachate collection system have been installed at the facility; or

(3) the owner or operator inspects the liner (or liners) which has been installed at the facility.

This subsection shall not be construed to affect other exemptions or waivers from such standards provided in regulations in effect on the date of enactment of the Hazardous and Solid Waste Amendments of 1984 or as may be provided in revisions to those regulations, to the extent consistent with this subsection. The Administrator is authorized on a case-by-case basis to exempt from ground water monitoring requirements under this section (including subsection (o)) any engineered structure which the Administrator finds does not receive or contain liquid waste (nor waste containing free liquids), is designed and operated to exclude liquid from precipita-

<sup>11</sup>So in law. Probably should be followed by a comma.

tion or other runoff, utilizes multiple leak detection systems within the outer layer of containment, and provides for continuing operation and maintenance of these leak detection systems during the operating period, closure, and the period required for post-closure monitoring and for which the Administrator concludes on the basis of such findings that there is a reasonable certainty hazardous constituents will not migrate beyond the outer layer of containment prior to the end of the period required for post-closure monitoring.

(q) HAZARDOUS WASTE USED AS FUEL.—(1) Not later than two years after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, and after notice and opportunity for public hearing, the Administrator shall promulgate regulations establishing such—

(A) standards applicable to the owners and operators of facilities which produce a fuel—

(i) from any hazardous waste identified or listed under section 3001, or

(ii) from any hazardous waste identified or listed under section 3001 and any other material;

(B) standards applicable to the owners and operators of facilities which burn, for purposes of energy recovery, any fuel produced as provided in subparagraph (A) or any fuel which otherwise contains any hazardous waste identified or listed under section 3001; and

(C) standards applicable to any person who distributes or markets any fuel which is produced as provided in subparagraph (A) or any fuel which otherwise contains any hazardous waste identified or listed under section 3001;

as may be necessary to protect human health and the environment. Such standards may include any of the requirements set forth in paragraphs (1) through (7) of subsection (a) as may be appropriate. Nothing in this subsection shall be construed to affect or impair the provisions of section 3001(b)(3). For purposes of this subsection, the term “hazardous waste listed under section 3001” includes any commercial chemical product which is listed under section 3001 and which, in lieu of its original intended use, is (i) produced for use as (or as a component of) a fuel, (ii) distributed for use as a fuel, or (iii) burned as a fuel.

(2)(A) This subsection, subsection (r), and subsection (s) shall not apply to petroleum refinery wastes containing oil which are converted into petroleum coke at the same facility at which such wastes were generated, unless the resulting coke product would exceed one or more characteristics by which a substance would be identified as a hazardous waste under section 3001.

(B) The Administrator may exempt from the requirements of this subsection, subsection (r), or subsection (s) facilities which burn de minimis quantities of hazardous waste as fuel, as defined by the Administrator, if the wastes are burned at the same facility at which such wastes are generated; the waste is burned to recover useful energy, as determined by the Administrator on the basis of the design and operating characteristics of the facility and the heating value and other characteristics of the waste; and the waste is burned in a type of device determined by the Administrator to be designed and operated at a destruction and removal efficiency

sufficient such that protection of human health and environment is assured.

(C)(i) After the date of the enactment of the Hazardous and Solid Waste Amendments of 1984 and until standards are promulgated and in effect under paragraph (2) of this subsection, no fuel which contains any hazardous waste may be burned in any cement kiln which is located within the boundaries of any incorporated municipality with a population greater than five hundred thousand (based on the most recent census statistics) unless such kiln fully complies with regulations (as in effect on the date of the enactment of the Hazardous and Solid Waste Amendments of 1984) under this subtitle which are applicable to incinerators.

(ii) Any person who knowingly violates the prohibition contained in clause (i) shall be deemed to have violated section 3008(d)(2).

(r) LABELING.—(1) Notwithstanding any other provision of law, until such time as the Administrator promulgates standards under subsection (q) specifically superceding this requirement, it shall be unlawful for any person who is required to file a notification in accordance with paragraph (1) or (3) of section 3010 to distribute or market any fuel which is produced from any hazardous waste identified or listed under section 3001, or any fuel which otherwise contains any hazardous waste identified or listed under section 3001 if the invoice or the bill of sale fails—

(A) to bear the following statement: “WARNING: THIS FUEL CONTAINS HAZARDOUS WASTES”; and

(B) to list the hazardous wastes contained therein.

Beginning ninety days after the enactment of the Hazardous and Solid Waste Amendments of 1984, such statement shall be located in a conspicuous place on every such invoice or bill of sale and shall appear in conspicuous and legible type in contrast by typography, layouts, or color with other printed matter on the invoice or bill of sale.

(2) Unless the Administrator determines otherwise as may be necessary to protect human health and the environment, this subsection shall not apply to fuels produced from petroleum refining waste containing oil if—

(A) such materials are generated and reinserted onsite into the refining process;

(B) contaminants are removed; and

(C) such refining waste containing oil is converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

(3) Unless the Administrator determines otherwise as may be necessary to protect human health and the environment, this subsection shall not apply to fuels produced from oily materials, resulting from normal petroleum refining, production and transportation practices, if (A) contaminants are removed; and (B) such oily materials are converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC



2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

(s) RECORDKEEPING.—Not later than fifteen months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate regulations requiring that any person who is required to file a notification in accordance with subparagraph (1), (2), or (3), of section 3010(a) shall maintain such records regarding fuel blending, distribution, or use as may be necessary to protect human health and the environment.

(t) FINANCIAL RESPONSIBILITY PROVISIONS.—(1) Financial responsibility required by subsection (a) of this section may be established in accordance with regulations promulgated by the Administrator by any one, or any combination, of the following: insurance, guarantee, surety bond, letter of credit, or qualification as a self-insurer. In promulgating requirements under this section, the Administrator is authorized to specify policy or other contractual terms, conditions, or defenses which are necessary or are unacceptable in establishing such evidence of financial responsibility in order to effectuate the purposes of this Act.

(2) In any case where the owner or operator is in bankruptcy, reorganization, or arrangement pursuant to the Federal Bankruptcy Code or where (with reasonable diligence) jurisdiction in any State court or any Federal Court cannot be obtained over an owner or operator likely to be solvent at the time of judgment, any claim arising from conduct for which evidence of financial responsibility must be provided under this section may be asserted directly against the guarantor providing such evidence of financial responsibility. In the case of any action pursuant to this subsection, such guarantor shall be entitled to invoke all rights and defenses which would have been available to the owner or operator if any action had been brought against the owner or operator by the claimant and which would have been available to the guarantor if an action had been brought against the guarantor by the owner or operator.

(3) The total liability of any guarantor shall be limited to the aggregate amount which the guarantor has provided as evidence of financial responsibility to the owner or operator under this Act. Nothing in this subsection shall be construed to limit any other State or Federal statutory, contractual or common law liability of a guarantor to its owner or operator including, but not limited to, the liability of such guarantor for bad faith either in negotiating or in failing to negotiate the settlement of any claim. Nothing in this subsection shall be construed to diminish the liability of any person under section 107 or 111 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 or other applicable law.

(4) For the purpose of this subsection, the term “guarantor” means any person, other than the owner or operator, who provides evidence of financial responsibility for an owner or operator under this section.

(u) CONTINUING RELEASES AT PERMITTED FACILITIES.—Standards promulgated under this section shall require, and a permit issued after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 by the Administrator or a State shall require, corrective action for all releases of hazardous waste or con-

stituents from any solid waste management unit at a treatment, storage, or disposal facility seeking a permit under this subtitle, regardless of the time at which waste was placed in such unit. Permits issued under section 3005 shall contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing such corrective action.

(v) **CORRECTIVE ACTIONS BEYOND FACILITY BOUNDARY.**—As promptly as practicable after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall amend the standards under this section regarding corrective action required at facilities for the treatment, storage, or disposal, of hazardous waste listed or identified under section 3001 to require that corrective action be taken beyond the facility boundary where necessary to protect human health and the environment unless the owner or operator of the facility concerned demonstrates to the satisfaction of the Administrator that, despite the owner or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. Such regulations shall take effect immediately upon promulgation, notwithstanding section 3010(b), and shall apply to—

(1) all facilities operating under permits issued under subsection (c), and

(2) all landfills, surface impoundments, and waste pile units (including any new units, replacements of existing units, or lateral expansions of existing units) which receive hazardous waste after July 26, 1982.

Pending promulgation of such regulations, the Administrator shall issue corrective action orders for facilities referred to in paragraphs (1) and (2), on a case-by-case basis, consistent with the purposes of this subsection.

(w) **UNDERGROUND TANKS.**—Not later than March 1, 1985, the Administrator shall promulgate final permitting standards under this section for underground tanks that cannot be entered for inspection. Within forty-eight months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, such standards shall be modified, if necessary, to cover at a minimum all requirements and standards described in section 9003.

(x) If (1) solid waste from the extraction, beneficiation or processing of ores and minerals, including phosphate rock and overburden from the mining of uranium, (2) fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, or (3) cement kiln dust waste, is subject to regulation under this subtitle, the Administrator is authorized to modify the requirements of subsections (c), (d), (e), (f), (g), (o), and (u) and section 3005(j), in the case of landfills or surface impoundments receiving such solid waste, to take into account the special characteristics of such wastes, the practical difficulties associated with implementation of such requirements, and site-specific characteristics, including but not limited to the climate, geology, hydrology and soil chemistry at the site, so long as such modified requirements assure protection of human health and the environment.

(y) MUNITIONS.—(1) Not later than 6 months after the date of the enactment of the Federal Facility Compliance Act of 1992, the Administrator shall propose, after consulting with the Secretary of Defense and appropriate State officials, regulations identifying when military munitions become hazardous waste for purposes of this subtitle and providing for the safe transportation and storage of such waste. Not later than 24 months after such date, and after notice and opportunity for comment, the Administrator shall promulgate such regulations. Any such regulations shall assure protection of human health and the environment.

(2) For purposes of this subsection, the term “military munitions” includes chemical and conventional munitions.

[42 U.S.C. 6924]

PERMITS FOR TREATMENT, STORAGE, OR DISPOSAL OF HAZARDOUS  
WASTE

SEC. 3005. (a) PERMIT REQUIREMENTS.—Not later than eighteen months after the date of the enactment of this section, the Administrator shall promulgate regulations requiring each person owning or operating an existing facility or planning to construct a new facility for the treatment, storage, or disposal of hazardous waste identified or listed under this subtitle to have a permit issued pursuant to this section. Such regulations shall take effect on the date provided in section 3010 and upon and after such date the treatment, storage, or disposal of any such hazardous waste and the construction of any new facility for the treatment, storage, or disposal of any such hazardous waste is prohibited except in accordance with such a permit. No permit shall be required under this section in order to construct a facility if such facility is constructed pursuant to an approval issued by the Administrator under section 6(e) of the Toxic Substances Control Act for the incineration of polychlorinated biphenyls and any person owning or operating such a facility may, at any time after operation or construction of such facility has begun, file an application for a permit pursuant to this section authorizing such facility to incinerate hazardous waste identified or listed under this subtitle.

(b) REQUIREMENTS OF PERMIT APPLICATION.—Each application for a permit under this section shall contain such information as may be required under regulations promulgated by the Administrator, including information respecting—

(1) estimates with respect to the composition, quantities, and concentrations of any hazardous waste identified or listed under this subtitle, or combinations of any such hazardous waste and any other solid waste, proposed to be disposed of, treated, transported, or stored, and the time, frequency, or rate of which such waste is proposed to be disposed of, treated, transported, or stored; and

(2) the site at which such hazardous waste or the products of treatment of such hazardous waste will be disposed of, treated, transported to, or stored.

(c) PERMIT ISSUANCE.—(1) Upon a determination by the Administrator (or a State, if applicable), of compliance by a facility for which a permit is applied for under this section with the require-

ments of this section and section 3004, the Administrator (or the State) shall issue a permit for such facilities. In the event permit applicants propose modification of their facilities, or in the event the Administrator (or the State) determines that modifications are necessary to conform to the requirements under this section and section 3004, the permit shall specify the time allowed to complete the modifications.

(2)(A)(i) Not later than the date four years after the enactment of the Hazardous and Solid Waste Amendments of 1984, in the case of each application under this subsection for a permit for a land disposal facility which was submitted before such date, the Administrator shall issue a final permit pursuant to such application or issue a final denial of such application.

(ii) Not later than the date five years after the enactment of the Hazardous and Solid Waste Amendments of 1984, in the case of each application for a permit under this subsection for an incinerator facility which was submitted before such date, the Administrator shall issue a final permit pursuant to such application or issue a final denial of such application.

(B) Not later than the date eight years after the enactment of the Hazardous and Solid Waste Amendments of 1984, in the case of each application for a permit under this subsection for any facility (other than a facility referred to in subparagraph (A)) which was submitted before such date, the Administrator shall issue a final permit pursuant to such application or issue a final denial of such application.

(C) The time periods specified in this paragraph shall also apply in the case of any State which is administering an authorized hazardous waste program under section 3006. Interim status under subsection (e) shall terminate for each facility referred to in subparagraph (A)(ii) or (B) on the expiration of the five- or eight-year period referred to in subparagraph (A) or (B), whichever is applicable, unless the owner or operator of the facility applies for a final determination regarding the issuance of a permit under this subsection within—

(i) two years after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984 (in the case of a facility referred to in subparagraph (A)(ii)), or

(ii) four years after such date of enactment (in the case of a facility referred to in subparagraph (B)).

(3) Any permit under this section shall be for a fixed term, not to exceed 10 years in the case of any land disposal facility, storage facility, or incinerator or other treatment facility. Each permit for a land disposal facility shall be reviewed five years after date of issuance or reissuance and shall be modified as necessary to assure that the facility continues to comply with the currently applicable requirements of this section and section 3004. Nothing in this subsection shall preclude the Administrator from reviewing and modifying a permit at any time during its term. Review of any application for a permit renewal shall consider improvements in the state of control and measurement technology as well as changes in applicable regulations. Each permit issued under this section shall contain such terms and conditions as the Administrator (or the State)



determines necessary to protect human health and the environment.

(d) PERMIT REVOCATION.—Upon a determination by the Administrator (or by a State, in the case of a State having an authorized hazardous waste program under section 3006) of noncompliance by a facility having a permit under this title with the requirements of this section or section 3004, the Administrator (or State, in the case of a State having an authorized hazardous waste program under section 3006) shall revoke such permit.

(e) INTERIM STATUS.—(1) Any person who—

(A) owns or operates a facility required to have a permit under this section which facility—

(i) was in existence on November 19, 1980, or

(ii) is in existence on the effective date of statutory or regulatory changes under this Act that render the facility subject to the requirement to have a permit under this section,

(B) has complied with the requirements of section 3010(a),

and

(C) has made an application for a permit under this section,

shall be treated as having been issued such permit until such time as final administrative disposition of such application is made, unless the Administrator or other plaintiff proves that final administrative disposition of such application has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application. This paragraph shall not apply to any facility which has been previously denied a permit under this section or if authority to operate the facility under this section has been previously terminated.

(2) In the case of each land disposal facility which has been granted interim status under this subsection before the date of enactment of the Hazardous and Solid Waste Amendments of 1984, interim status shall terminate on the date twelve months after the date of the enactment of such Amendments unless the owner or operator of such facility—

(A) applies for a final determination regarding the issuance of a permit under subsection (c) for such facility before the date twelve months after the date of the enactment of such Amendments; and

(B) certifies that such facility is in compliance with all applicable groundwater monitoring and financial responsibility requirements.

(3) In the case of each land disposal facility which is in existence on the effective date of statutory or regulatory changes under this Act that render the facility subject to the requirement to have a permit under this section and which is granted interim status under this subsection, interim status shall terminate on the date twelve months after the date on which the facility first becomes subject to such permit requirement unless the owner or operator of such facility—

(A) applies for a final determination regarding the issuance of a permit under subsection (c) for such facility be-

fore the date twelve months after the date on which the facility first becomes subject to such permit requirement; and

(B) certifies that such facility is in compliance with all applicable groundwater monitoring and financial responsibility requirements.

(f) COAL MINING WASTES AND RECLAMATION PERMITS.—Notwithstanding subsection (a) through (e) of this section, any surface coal mining and reclamation permit covering any coal mining wastes or overburden which has been issued or approved under the Surface Mining Control and Reclamation Act of 1977 shall be deemed to be a permit issued pursuant to this section with respect to the treatment, storage, or disposal of such wastes or overburden. Regulations promulgated by the Administrator under this subtitle shall not be applicable to treatment, storage, or disposal of coal mining wastes and overburden which are covered by such a permit.

(g) RESEARCH, DEVELOPMENT, AND DEMONSTRATION PERMITS.—(1) The Administrator may issue a research, development, and demonstration permit for any hazardous waste treatment facility which proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under this subtitle. Any such permit shall include such terms and conditions as will assure protection of human health and the environment. Such permits—

(A) shall provide for the construction of such facilities, as necessary, and for operation of the facility for not longer than one year (unless renewed as provided in paragraph (4)), and

(B) shall provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the Administrator deems necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment, and

(C) shall include such requirements as the Administrator deems necessary to protect human health and the environment (including, but not limited to, requirements regarding monitoring, operation, insurance or bonding, financial responsibility,<sup>12</sup> closure, and remedial action), and such requirements as the Administrator deems necessary regarding testing and providing of information to the Administrator with respect to the operation of the facility.

The Administrator may apply the criteria set forth in this paragraph in establishing the conditions of each permit without separate establishment of regulations implementing such criteria.

(2) For the purpose of expediting review and issuance of permits under this subsection, the Administrator may, consistent with the protection of human health and the environment, modify or waive permit application and permit issuance requirements established in the Administrator's general permit regulations except that there may be no modification or waiver of regulations regarding financial responsibility (including insurance) or of procedures established under section 7004(b)(2) regarding public participation.

<sup>12</sup>So in law. Probably should be "responsibility".

(3) The Administrator may order an immediate termination of all operations at the facility at any time he determines that termination is necessary to protect human health and the environment.

(4) Any permit issued under this subsection may be renewed not more than three times. Each such renewal shall be for a period of not more than 1 year.

(h) WASTE MINIMIZATION.—Effective September 1, 1985, it shall be a condition of any permit issued under this section for the treatment, storage, or disposal of hazardous waste on the premises where such waste was generated that the permittee certify, no less often than annually, that—

(1) the generator of the hazardous waste has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable; and

(2) the proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment.

(i) INTERIM STATUS FACILITIES RECEIVING WASTES AFTER JULY 26, 1982.—The standards concerning ground water monitoring, unsaturated zone monitoring, and corrective action, which are applicable under section 3004 to new landfills, surface impoundments, land treatment units, and waste-pile units required to be permitted under subsection (c) shall also apply to any landfill, surface impoundment, land treatment unit, or waste-pile unit qualifying for the authorization to operate under subsection (e) which receives hazardous waste after July 26, 1982.

(j) INTERIM STATUS SURFACE IMPOUNDMENTS.—(1) Except as provided in paragraph (2), (3), or (4), each surface impoundment in existence on the date of enactment of the Hazardous and Solid Waste Amendments of 1984 and qualifying for the authorization to operate under subsection (e) of this section shall not receive, store, or treat hazardous waste after the date four years after such date of enactment unless such surface impoundment is in compliance with the requirements of section 3004(o)(1)(A) which would apply to such impoundment if it were new.

(2) Paragraph (1) of this subsection shall not apply to any surface impoundment which (A) has at least one liner, for which there is no evidence that such liner is leaking; (B) is located more than one-quarter mile from an underground source of drinking water; and (C) is in compliance with generally applicable ground water monitoring requirements for facilities with permits under subsection (c) of this section.

(3) Paragraph (1) of this subsection shall not apply to any surface impoundment which (A) contains treated waste water during the secondary or subsequent phases of an aggressive biological treatment facility subject to a permit issued under section 402 of the Clean Water Act (or which holds such treated waste water after treatment and prior to discharge); (B) is in compliance with generally applicable ground water monitoring requirements for facilities with permits under subsection (c) of this section; and (C)(i) is part of a facility in compliance with section 301(b)(2) of the Clean Water Act, or (ii) in the case of a facility for which no efflu-

ent guidelines required under section 304(b)(2) of the Clean Water Act are in effect and no permit under section 402(a)(1) of such Act implementing section 301(b)(2) of such Act has been issued, is part of a facility in compliance with a permit under section 402 of such Act, which is achieving significant degradation of toxic pollutants and hazardous constituents contained in the untreated waste stream and which has identified those toxic pollutants and hazardous constituents in the untreated waste stream to the appropriate permitting authority.

(4) The Administrator (or the State, in the case of a State with an authorized program), after notice and opportunity for comment, may modify the requirements of paragraph (1) for any surface impoundment if the owner or operator demonstrates that such surface impoundment is located, designed and operated so as to assure that there will be no migration of any hazardous constituent<sup>13</sup> into ground water or surface water at any future time. The Administrator or the State shall take into account locational criteria established under section 3004(o)(7).

(5) The owner or operator of any surface impoundment potentially subject to paragraph (1) who has reason to believe that on the basis of paragraph (2), (3), or (4) such surface impoundment is not required to comply with the requirements of paragraph (1), shall apply to the Administrator (or the State, in the case of a State with an authorized program) not later than twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 for a determination of the applicability of paragraph (1) (in the case of paragraph (2) or (3)) or for a modification of the requirements of paragraph (1) (in the case of paragraph (4)), with respect to such surface impoundment. Such owner or operator shall provide, with such application, evidence pertinent to such decision, including:

(A) an application for a final determination regarding the issuance of a permit under subsection (c) of this section for such facility, if not previously submitted;

(B) evidence as to compliance with all applicable ground water monitoring requirements and the information and analysis from such monitoring;

(C) all reasonably ascertainable evidence as to whether such surface impoundment is leaking; and

(D) in the case of applications under paragraph (2) or (3), a certification by a registered professional engineer with academic training and experience in ground water hydrology that—

(i) under paragraph (2), the liner of such surface impoundment is designed, constructed, and operated in accordance with applicable requirements, such surface impoundment is more than one-quarter mile from an underground source of drinking water and there is no evidence such liner is leaking; or

(ii) under paragraph (3), based on analysis of those toxic pollutants and hazardous constituents that are likely

<sup>13</sup>So in law. Probably should be “constituent”.



to be present in the untreated waste stream, such impoundment satisfies the conditions of paragraph (3).

In the case of any surface impoundment for which the owner or operator fails to apply under this paragraph within the time provided by this paragraph or paragraph (6), such surface impoundment shall comply with paragraph (1) notwithstanding paragraph (2), (3), or (4). Within twelve months after receipt of such application and evidence and not later than thirty-six months after such date of enactment, and after notice and opportunity to comment, the Administrator (or, if appropriate, the State) shall advise such owner or operator on the applicability of paragraph (1) to such surface impoundment or as to whether and how the requirements of paragraph (1) shall be modified and applied to such surface impoundment.

(6)(A) In any case in which a surface impoundment becomes subject to paragraph (1) after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 due to the promulgation of additional listings or characteristics for the identification of hazardous waste under section 3001, the period for compliance in paragraph (1) shall be four years after the date of such promulgation, the period for demonstrations under paragraph (4) and for submission of evidence under paragraph (5) shall be not later than twenty-four months after the date of such promulgation, and the period for the Administrator (or if appropriate, the State) to advise such owners or operators under paragraph (5) shall be not later than thirty-six months after the date of promulgation.

(B) In any case in which a surface impoundment is initially determined to be excluded from the requirements of paragraph (1) but due to a change in condition (including the existence of a leak) no longer satisfies the provisions of paragraph (2), (3), or (4) and therefore becomes subject to paragraph (1), the period for compliance in paragraph (1) shall be two years after the date of discovery of such change of condition, or in the case of a surface impoundment excluded under paragraph (3) three years after such date of discovery.

(7)(A) The Administrator shall study and report to the Congress on the number, range of size, construction, likelihood of hazardous constituents migrating into ground water, and potential threat to human health and the environment of existing surface impoundments excluded by paragraph (3) from the requirements of paragraph (1). Such report shall address the need, feasibility, and estimated costs of subjecting such existing surface impoundments to the requirements of paragraph (1).

(B) In the case of any existing surface impoundment or class of surface impoundments from which the Administrator (or the State, in the case of a State with an authorized program) determines hazardous constituents are likely to migrate into ground water, the Administrator (or if appropriate, the State) is authorized to impose such requirements as may be necessary to protect human health and the environment, including the requirements of section 3004(o) which would apply to such impoundments if they were new.

(C) In the case of any surface impoundment excluded by paragraph (3) from the requirements of paragraph (1) which is subsequently determined to be leaking, the Administrator (or, if appro-

appropriate, the State) shall require compliance with paragraph (1), unless the Administrator (or, if appropriate, the State) determines that such compliance is not necessary to protect human health and the environment.

(8) In the case of any surface impoundment in which the liners and leak detection system have been installed pursuant to the requirements of paragraph (1) and in good faith compliance with section 3004(o) and the Administrator's regulations and guidance documents governing liners and leak detection systems, no liner or leak detection system which is different from that which was so installed pursuant to paragraph (1) shall be required for such unit by the Administrator when issuing the first permit under this section to such facility. Nothing in this paragraph shall preclude the Administrator from requiring installation of a new liner when the Administrator has reason to believe that any liner installed pursuant to the requirements of this subsection is leaking.

(9) In the case of any surface impoundment which has been excluded by paragraph (2) on the basis of a liner meeting the definition under paragraph (12)(A)(ii), at the closure of such impoundment the Administrator shall require the owner or operator of such impoundment to remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner or operator of such impoundment shall be required to comply with appropriate post-closure requirements, including but not limited to ground water monitoring and corrective action.

(10) Any incremental cost attributable to the requirements of this subsection or section 3004(o) shall not be considered by the Administrator (or the State, in the case of a State with an authorized program under section 402 of the Clean Water Act)—

(A) in establishing effluent limitations and standards under section 301, 304, 306, 307, or 402 of the Clean Water Act based on effluent limitations guidelines and standards promulgated any time before twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984; or

(B) in establishing any other effluent limitations to carry out the provisions of section 301, 307, or 402 of the Clean Water Act on or before October 1, 1986.

(11)(A) If the Administrator allows a hazardous waste which is prohibited from one or more methods of land disposal under subsection (d), (e), or (g) of section 3004 (or under regulations promulgated by the Administrator under such subsections) to be placed in a surface impoundment (which is operating pursuant to interim status) for storage or treatment, such impoundment shall meet the requirements that are applicable to new surface impoundments under section 3004(o)(1), unless such impoundment meets the requirements of paragraph (2) or (4).

(B) In the case of any hazardous waste which is prohibited from one or more methods of land disposal under subsection (d), (e), or (g) of section 3004 (or under regulations promulgated by the Administrator under such subsection) the placement or maintenance of such hazardous waste in a surface impoundment for treat-

ment is prohibited as of the effective date of such prohibition unless the treatment residues which are hazardous are, at a minimum, removed for subsequent management within one year of the entry of the waste into the surface impoundment.

(12)(A) For the purposes of paragraph (2)(A) of this subsection, the term “liner” means—

(i) a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility; or

(ii) a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility.

(B) For the purposes of this subsection, the term “aggressive biological treatment facility” means a system of surface impoundments in which the initial impoundment of the secondary treatment segment of the facility utilizes intense mechanical aeration to enhance biological activity to degrade waste water pollutants and

(i) the hydraulic retention time in such initial impoundment is no longer than 5 days under normal operating conditions, on an annual average basis;

(ii) the hydraulic retention time in such initial impoundment is no longer than thirty days under normal operating conditions, on an annual average basis: *Provided*, That the sludge in such impoundment does not constitute a hazardous waste as identified by the extraction procedure toxicity characteristic in effect on the date of enactment of the Hazardous and Solid Waste Amendments of 1984; or

(iii) such system utilizes activated sludge treatment in the first portion of secondary treatment.

(C) For the purposes of this subsection, the term “underground source or<sup>14</sup> drinking water” has the same meaning as provided in regulations under the Safe Drinking Water Act (title XIV of the Public Health Service Act).

(13) The Administrator may modify the requirements of paragraph (1) in the case of a surface impoundment for which the owner or operator, prior to October 1, 1984, has entered into, and is in compliance with, a consent order, decree, or agreement with the Administrator or a State with an authorized program mandating corrective action with respect to such surface impoundment that provides a degree of protection of human health and the environment which is at a minimum equivalent to that provided by paragraph (1).

【42 U.S.C. 6925】

#### AUTHORIZED STATE HAZARDOUS WASTE PROGRAMS

SEC. 3006. (a) FEDERAL GUIDELINES.—Not later than eighteen months after the date of enactment of this Act, the Administrator, after consultation with State authorities, shall promulgate guidelines to assist States in the development of State hazardous waste programs.

<sup>14</sup>So in law. Probably should be “of”.

(b) **AUTHORIZATION OF STATE PROGRAM.**—Any State which seeks to administer and enforce a hazardous waste program pursuant to this subtitle may develop and, after notice and opportunity for public hearing, submit to the Administrator an application, in such form as he shall require, for authorization of such program. Within ninety days following submission of an application under this subsection, the Administrator shall issue a notice as to whether or not he expects such program to be authorized, and within ninety days following such notice (and after opportunity for public hearing) he shall publish his findings as to whether or not the conditions listed in items (1), (2), and (3) below have been met. Such State is authorized to carry out such program in lieu of the Federal program under this subtitle in such State and to issue and enforce permits for the storage, treatment, or disposal of hazardous waste (and to enforce permits deemed to have been issued under section 3012(d)(1))<sup>15</sup> unless, within ninety days following submission of the application the Administrator notifies such State that such program may not be authorized and, within ninety days following such notice and after opportunity for public hearing, he finds that (1) such State program is not equivalent to the Federal program under this subtitle, (2) such program is not consistent with the Federal or State programs applicable in other States, or (3) such program does not provide adequate enforcement of compliance with the requirements of this subtitle. In authorizing a State program, the Administrator may base his findings on the Federal program in effect one year prior to submission of a State's application or in effect on January 26, 1983, whichever is later.

(c) **INTERIM AUTHORIZATION.**—(1) Any State which has in existence a hazardous waste program pursuant to State law before the date ninety days after the date of promulgation of regulations under sections 3002, 3003, 3004, and 3005, may submit to the Administrator evidence of such existing program and may request a temporary authorization to carry out such program under this subtitle. The Administrator shall, if the evidence submitted shows the existing State program to be substantially equivalent to the Federal program under this subtitle, grant an interim authorization to the State to carry out such program in lieu of the Federal program pursuant to this subtitle for a period ending no later than January 31, 1986.

(2) The Administrator shall, by rule, establish a date for the expiration of interim authorization under this subsection.

(3) Pending interim or final authorization of a State program for any State which reflects the amendments made by the Hazardous and Solid Waste Amendments of 1984, the State may enter into an agreement with the Administrator under which the State may assist in the administration of the requirements and prohibitions which take effect pursuant to such Amendments.

(4) In the case of a State permit program for any State which is authorized under subsection (b) or under this subsection, until such program is amended to reflect the amendments made by the Hazardous and Solid Waste Amendments of 1984 and such pro-

<sup>15</sup>The reference in section 3006(b) to section 3012(d)(1) should be a reference to section 3014(d)(1), pursuant to the renumbering made by Public Law 98-616.



gram amendments receive interim or final authorization, the Administrator shall have the authority in such State to issue or deny permits or those portions of permits affected by the requirements and prohibitions established by the Hazardous and Solid Waste Amendments of 1984. The Administrator shall coordinate with States the procedures for issuing such permits.

(d) EFFECT OF STATE PERMIT.—Any action taken by a State under a hazardous waste program authorized under this section shall have the same force and effect as action taken by the Administrator under this subtitle.

(e) WITHDRAWAL OF AUTHORIZATION.—Whenever the Administrator determines after public hearing that a State is not administering and enforcing a program authorized under this section in accordance with requirements of this section, he shall so notify the State and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw authorization of such program and establish a Federal program pursuant to this subtitle. The Administrator shall not withdraw authorization of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

(f) AVAILABILITY OF INFORMATION.—No State program may be authorized by the Administrator under this section unless—

(1) such program provides for the public availability of information obtained by the State regarding facilities and sites for the treatment, storage, and disposal of hazardous waste; and

(2) such information is available to the public in substantially the same manner, and to the same degree, as would be the case if the Administrator was carrying out the provisions of this subtitle in such State.

(g) AMENDMENTS MADE BY 1984 ACT.—(1) Any requirement or prohibition which is applicable to the generation, transportation, treatment, storage, or disposal of hazardous waste and which is imposed under this subtitle pursuant to the amendments made by the Hazardous and Solid Waste Amendments of 1984 shall take effect in each State having an interim or finally authorized State program on the same date as such requirement takes effect in other States. The Administrator shall carry out such requirement directly in each such State unless the State program is finally authorized (or is granted interim authorization as provided in paragraph (2)) with respect to such requirement.

(2) Any State which, before the date of the enactment of the Hazardous and Solid Waste Amendments of 1984<sup>16</sup> has an existing hazardous waste program which has been granted interim or final authorization under this section may submit to the Administrator evidence that such existing program contains (or has been amended to include) any requirement which is substantially equivalent to a requirement referred to in paragraph (1) and may request interim authorization to carry out that requirement under this subtitle. The Administrator shall, if the evidence submitted shows the State requirement to be substantially equivalent to the requirement re-

<sup>16</sup>So in law. Probably should be followed by a comma.

ferred to in paragraph (1), grant an interim authorization to the State to carry out such requirement in lieu of direct administration in the State by the Administrator of such requirement.

(h) STATE PROGRAMS FOR USED OIL.—In the case of used oil which is not listed or identified under this subtitle as a hazardous waste but which is regulated under section 3014, the provisions of this section regarding State programs shall apply in the same manner and to the same extent as such provisions apply to hazardous waste identified or listed under this subtitle.

[42 U.S.C. 6926]

#### INSPECTIONS

SEC. 3007. (a) ACCESS ENTRY.—For purposes of developing or assisting in the development of any regulation or enforcing the provisions of this title, any person who generates, stores, treats, transports, disposes of, or otherwise handles or has handled hazardous wastes shall, upon request of any officer, employee or representative of the Environmental Protection Agency, duly designated by the Administrator, or upon request of any duly designated officer, employee or representative of a State having an authorized hazardous waste program, furnish information relating to such wastes and permit such person at all reasonable times to have access to, and to copy all records relating to such wastes. For the purposes of developing or assisting in the development of any regulation or enforcing the provisions of this title, such officers, employees or representatives are authorized—

(1) to enter at reasonable times any establishment or other place where hazardous wastes are or have been generated, stored, treated, disposed of, or transported from;

(2) to inspect and obtain samples from any person of any such wastes and samples of any containers or labeling for such wastes.

Each such inspection shall be commenced and completed with reasonable promptness. If the officer, employee or representative obtains any samples, prior to leaving the premises, he shall give to the owner, operator, or agent in charge a receipt describing the sample obtained and if requested a portion of each such sample equal in volume or weight to the portion retained. If any analysis is made of such samples, a copy of the results of such analysis shall be furnished promptly to the owner, operator, or agent in charge.

(b) AVAILABILITY TO PUBLIC.—(1) Any records, reports, or information (including records, reports, or information obtained by representatives of the Environmental Protection Agency) obtained from any person under this section shall be available to the public, except that upon a showing satisfactory to the Administrator (or the State, as the case may be) by any person that records, reports, or information, or particular part thereof, to which the Administrator (or the State, as the case may be) or any officer, employee or representative thereof has access under this section if made public, would divulge information entitled to protection under section 1905 of title 18 of the United States Code, such information or particular portion thereof shall be considered confidential in accordance with the purposes of that section, except that such record, re-

port, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act, or when relevant in any proceeding under this Act.

(2) Any person not subject to the provisions of section 1905 of title 18 of the United States Code who knowingly and willfully divulges or discloses any information entitled to protection under this subsection shall, upon conviction, be subject to a fine of not more than \$5,000 or to imprisonment not to exceed one year, or both.

(3) In submitting data under this Act, a person required to provide such data may—

(A) designate the data which such person believes is entitled to protection under this subsection, and

(B) submit such designated data separately from other data submitted under this Act.

A designation under this paragraph shall be made in writing and in such manner as the Administrator may prescribe.

(4) Notwithstanding any limitation contained in this section or any other provision of law, all information reported to, or otherwise obtained by, the Administrator (or any representative of the Administrator) under this Act shall be made available, upon written request of any duly authorized committee of the Congress, to such committee.

(c) **FEDERAL FACILITY INSPECTIONS.**—The Administrator shall undertake on an annual basis a thorough inspection of each facility for the treatment, storage, or disposal of hazardous waste which is owned or operated by a department, agency, or instrumentality of the United States to enforce its compliance with this subtitle and the regulations promulgated thereunder. Any State with an authorized hazardous waste program also may conduct an inspection of any such facility for purposes of enforcing the facility's compliance with the State hazardous waste program. The records of such inspections shall be available to the public as provided in subsection (b). The department, agency, or instrumentality owning or operating each such facility shall reimburse the Environmental Protection Agency for the costs of the inspection of the facility. With respect to the first inspection of each such facility occurring after the date of the enactment of the Federal Facility Compliance Act of 1992, the Administrator shall conduct a comprehensive ground water monitoring evaluation at the facility, unless such an evaluation was conducted during the 12-month period preceding such date of enactment.

(d) **STATE-OPERATED FACILITIES.**—The Administrator shall annually undertake a thorough inspection of every facility for the treatment, storage, or disposal of hazardous waste which is operated by a State or local government for which a permit is required under section 3005 of this title. The records of such inspection shall be available to the public as provided in subsection (b).

(e) **MANDATORY INSPECTIONS.**—(1) The Administrator (or the State in the case of a State having an authorized hazardous waste program under this subtitle) shall commence a program to thoroughly inspect every facility for the treatment, storage, or disposal of hazardous waste for which a permit is required under section 3005 no less often than every two years as to its compliance with

this subtitle (and the regulations promulgated under this subtitle). Such inspections shall commence not later than twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984. The Administrator shall, after notice and opportunity for public comment, promulgate regulations governing the minimum frequency and manner of such inspections, including the manner in which records of such inspections shall be maintained and the manner in which reports of such inspections shall be filed. The Administrator may distinguish between classes and categories of facilities commensurate with the risks posed by each class or category.

(2) Not later than six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall submit to the Congress a report on the potential for inspections of hazardous waste treatment, storage, or disposal facilities by nongovernmental inspectors as a supplement to inspections conducted by officers, employees, or representatives of the Environmental Protection Agency or States having authorized hazardous waste programs or operating under a cooperative agreement with the Administrator. Such report shall be prepared in cooperation with the States, insurance companies offering environmental impairment insurance, independent companies providing inspection services, and other such groups as appropriate. Such report shall contain recommendations on provisions and requirements for a program of private inspections to supplement governmental inspections.

[42 U.S.C. 6927]

#### FEDERAL ENFORCEMENT

SEC. 3008. (a) COMPLIANCE ORDERS.—(1) Except as provided in paragraph (2), whenever on the basis of any information the Administrator determines that any person has violated or is in violation of any requirement of this subtitle, the Administrator may issue an order assessing a civil penalty for any past or current violation, requiring compliance immediately or within a specified time period, or both, or the Administrator may commence a civil action in the United States district court in the district in which the violation occurred for appropriate relief, including a temporary or permanent injunction.

(2) In the case of a violation of any requirement of this subtitle where such violation occurs in a State which is authorized to carry out a hazardous waste program under section 3006, the Administrator shall give notice to the State in which such violation has occurred prior to issuing an order or commencing a civil action under this section.

(3) Any order issued pursuant to this subsection may include a suspension or revocation of any permit issued by the Administrator or a State under this subtitle and shall state with reasonable specificity the nature of the violation. Any penalty assessed in the order shall not exceed \$25,000 per day of noncompliance for each violation of a requirement of this subtitle. In assessing such a penalty, the Administrator shall take into account the seriousness of



the violation and any good faith efforts to comply with applicable requirements.

(b) PUBLIC HEARING.—Any order issued under this section shall become final unless, no later than thirty days after the order is served, the person or persons named therein request a public hearing. Upon such request the Administrator shall promptly conduct a public hearing. In connection with any proceeding under this section the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and may promulgate rules for discovery procedures.

(c) VIOLATION OF COMPLIANCE ORDERS.—If a violator fails to take corrective action within the time specified in a compliance order, the Administrator may assess a civil penalty of not more than \$25,000 for each day of continued noncompliance with the order and the Administrator may suspend or revoke any permit issued to the violator (whether issued by the Administrator or the State).

(d) CRIMINAL PENALTIES.—Any person who—

(1) knowingly transports or causes to be transported any hazardous waste identified or listed under this subtitle to a facility which does not have a permit under this subtitle, or pursuant to title I of the Marine Protection, Research, and Sanctuaries Act (86 Stat. 1052),

(2) knowingly treats, stores, or disposes of any hazardous waste identified or listed under this subtitle—

(A) without a permit under this subtitle or pursuant to title I of the Marine Protection, Research, and Sanctuaries Act (86 Stat. 1052); or

(B) in knowing violation of any material condition or requirement of such permit; or

(C) in knowing violation of any material condition or requirement of any applicable interim status regulations or standards;

(3) knowingly omits material information or makes any false material statement or representation in any application, label, manifest, record, report, permit, or other document filed, maintained, or used for purposes of compliance with regulations promulgated by the Administrator (or by a State in the case of an authorized State program) under this subtitle;

(4) knowingly generates, stores, treats, transports, disposes of, exports, or otherwise handles any hazardous waste or any used oil not identified or listed as a hazardous waste under this subtitle (whether such activity took place before or takes place after the date of the enactment of this paragraph) and who knowingly destroys, alters, conceals, or fails to file any record, application, manifest, report, or other document required to be maintained or filed for purposes of compliance with regulations promulgated by the Administrator (or by a State in the case of an authorized State program) under this subtitle;

(5) knowingly transports without a manifest, or causes to be transported without a manifest, any hazardous waste or any used oil not identified or listed as a hazardous waste under

this subtitle required by regulations promulgated under this subtitle (or by a State in the case of a State program authorized under this subtitle) to be accompanied by a manifest;

(6) knowingly exports a hazardous waste identified or listed under this subtitle (A) without the consent of the receiving country or, (B) where there exists an international agreement between the United States and the government of the receiving country establishing notice, export, and enforcement procedures for the transportation, treatment, storage, and disposal of hazardous wastes, in a manner which is not in conformance with such agreement; or

(7) knowingly stores, treats, transports, or causes to be transported, disposes of, or otherwise handles any used oil not identified or listed as a hazardous waste under subtitle C of the Solid Waste Disposal Act<sup>17</sup>—

(A) in knowing violation of any material condition or requirement of a permit under this subtitle C; or

(B) in knowing violation of any material condition or requirement of any applicable regulations or standards under this Act;

shall, upon conviction, be subject to a fine of not more than \$50,000 for each day of violation, or imprisonment not to exceed two years (five years in the case of a violation of paragraph (1) or (2)), or both. If the conviction is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment under the respective paragraph shall be doubled with respect to both fine and imprisonment.

(e) KNOWING ENDANGERMENT.—Any person who knowingly transports, treats, stores, disposes of, or exports any hazardous waste identified or listed under this subtitle or used oil not identified or listed as a hazardous waste under this subtitle in violation of paragraph (1), (2), (3), (4), (5), (6), or (7) of subsection (d) of this section who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment for not more than fifteen years, or both. A defendant that is an organization shall, upon conviction of violating this subsection, be subject to a fine of not more than \$1,000,000.

(f) SPECIAL RULES.—For the purposes of subsection (e)—

(1) A person's state of mind is knowing with respect to—

(A) his conduct, if he is aware of the nature of his conduct;

(B) an existing circumstance, if he is aware or believes that the circumstance exists; or

(C) a result of his conduct, if he is aware or believes that his conduct is substantially certain to cause danger of death or serious bodily injury.

(2) In determining whether a defendant who is a natural person knew that his conduct placed another person in imminent danger of death or serious bodily injury—

(A) the person is responsible only for actual awareness or actual belief that he possessed; and

<sup>17</sup>So in law. Probably should be “under this subtitle”.

(B) knowledge possessed by a person other than the defendant but not by the defendant himself may not be attributed to the defendant;

*Provided*, That in proving the defendant's possession of actual knowledge, circumstantial evidence may be used, including evidence that the defendant took affirmative steps to shield himself from relevant information.

(3) It is an affirmative defense to a prosecution that the conduct charged was consented to by the person endangered and that the danger and conduct charged were reasonably foreseeable hazards of—

(A) an occupation, a business, or a profession; or

(B) medical treatment or medical or scientific experimentation conducted by professionally approved methods and such other person had been made aware of the risks involved prior to giving consent.

The defendant may establish an affirmative defense under this subsection by a preponderance of the evidence.

(4) All general defenses, affirmative defenses, and bars to prosecution that may apply with respect to other Federal criminal offenses may apply under subsection (e) and shall be determined by the courts of the United States according to the principles of common law as they may be interpreted in the light of reason and experience. Concepts of justification and excuse applicable under this section may be developed in the light of reason and experience.

(5) The term "organization" means a legal entity, other than a government, established or organized for any purpose, and such term includes a corporation, company, association, firm, partnership, joint stock company, foundation, institution, trust, society, union, or any other association of persons.

(6) The term "serious bodily injury" means—

(A) bodily injury which involves a substantial risk of death;

(B) unconsciousness;

(C) extreme physical pain;

(D) protracted and obvious disfigurement; or

(E) protracted loss or impairment of the function of a bodily member, organ, or mental faculty.

(g) CIVIL PENALTY.—Any person who violates any requirement of this subtitle shall be liable to the United States for a civil penalty in an amount not to exceed \$25,000 for each such violation. Each day of such violation shall, for purposes of this subsection, constitute a separate violation.

(h) INTERIM STATUS CORRECTIVE ACTION ORDERS.—(1) Whenever on the basis of any information the Administrator determines that there is or has been a release of hazardous waste into the environment from a facility authorized to operate under section 3005(e) of this subtitle, the Administrator may issue an order requiring corrective action or such other response measure as he deems necessary to protect human health or the environment or the Administrator may commence a civil action in the United States district court in the district in which the facility is located

for appropriate relief, including a temporary or permanent injunction.

(2) Any order issued under this subsection may include a suspension or revocation of authorization to operate under section 3005(e) of this subtitle, shall state with reasonable specificity the nature of the required corrective action or other response measure, and shall specify a time for compliance. If any person named in an order fails to comply with the order, the Administrator may assess, and such person shall be liable to the United States for, a civil penalty in an amount not to exceed \$25,000 for each day of noncompliance with the order.

[42 U.S.C. 6928]

#### RETENTION OF STATE AUTHORITY

SEC. 3009. Upon the effective date of regulations under this subtitle no State or political subdivision may impose any requirements less stringent than those authorized under this subtitle respecting the same matter as governed by such regulations, except that if application of a regulation with respect to any matter under this subtitle is postponed or enjoined by the action of any court, no State or political subdivision shall be prohibited from acting with respect to the same aspect of such matter until such time as such regulation takes effect. Nothing in this title shall be construed to prohibit any State or political subdivision thereof from imposing any requirements, including those for site selection, which are more stringent than those imposed by such regulations. Nothing in this title (or in any regulation adopted under this title) shall be construed to prohibit any State from requiring that the State be provided with a copy of each manifest used in connection with hazardous waste which is generated within that State or transported to a treatment, storage, or disposal facility within that State.

[42 U.S.C. 6929]

#### EFFECTIVE DATE

SEC. 3010. (a) PRELIMINARY NOTIFICATION.—Not later than ninety days after promulgation of regulations under section 3001 identifying by its characteristics or listing any substance as hazardous waste subject to this subtitle, any person generating or transporting such substance or owning or operating a facility for treatment, storage, or disposal of such substance shall file with the Administrator (or with States having authorized hazardous waste permit programs under section 3006) a notification stating the location and general description of such activity and the identified or listed hazardous wastes handled by such person. Not later than fifteen months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984—

(1) the owner or operator of any facility which produces a fuel (A) from any hazardous waste identified or listed under section 3001, (B) from such hazardous waste identified or listed under section 3001 and any other material, (C) from used oil, or (D) from used oil and any other material;

(2) the owner or operator of any facility (other than a single- or two-family residence) which burns for purposes of en-



ergy recovery any fuel produced as provided in paragraph (1) or any fuel which otherwise contains used oil or any hazardous waste identified or listed under section 3001; and

(3) any person who distributes or markets any fuel which is produced as provided in paragraph (1) or any fuel which otherwise contains used oil or any hazardous waste identified or listed under section 3001<sup>18</sup>

shall file with the Administrator (and with the State in the case of a State with an authorized hazardous waste program) a notification stating the location and general description of the facility, together with a description of the identified or listed hazardous waste involved and, in the case of a facility referred to in paragraph (1) or (2), a description of the production or energy recovery activity carried out at the facility and such other information as the Administrator deems necessary. For purposes of the preceding provisions, the term "hazardous waste listed under section 3001" also includes any commercial chemical product which is listed under section 3001 and which, in lieu of its original intended use, is (i) produced for use as (or as a component of) a fuel, (ii) distributed for use as a fuel, or (iii) burned as a fuel. Notification shall not be required under the second sentence of this subsection in the case of facilities (such as residential boilers) where the Administrator determines that such notification is not necessary in order for the Administrator to obtain sufficient information respecting current practices of facilities using hazardous waste for energy recovery. Nothing in this subsection shall be construed to affect or impair the provisions of section 3001(b)(3). Nothing in this subsection shall affect regulatory determinations under section 3014. In revising any regulation under section 3001 identifying additional characteristics of hazardous waste or listing any additional substance as hazardous waste subject to this subtitle, the Administrator may require any person referred to in the preceding provision to file with the Administrator (or with States having authorized hazardous waste permit programs under section 3006) the notification described in the preceding provision. Not more than one such notification shall be required to be filed with respect to the same substance. No identified or listed hazardous waste subject to this subtitle may be transported, treated, stored, or disposed of unless notification has been given as required under this subsection.

(b) EFFECTIVE DATE OF REGULATION.—The regulations under this subtitle respecting requirements applicable to the generation, transportation, treatment, storage, or disposal of hazardous waste (including requirements respecting permits for such treatment, storage, or disposal) shall take effect on the date six months after the date of promulgation thereof (or six months, after the date of revision in the case of any regulation which is revised after the date required for promulgation thereof). At the time a regulation is promulgated, the Administrator may provide for a shorter period prior to the effective date, or an immediate effective date for:

(1) a regulation with which the Administrator finds the regulated community does not need six months to come into compliance;

<sup>18</sup>So in law. Probably should be followed by a semicolon.

- (2) a regulation which responds to an emergency situation;  
or
- (3) other good cause found and published with the regulation.

【42 U.S.C. 6930】

#### AUTHORIZATION OF ASSISTANCE TO STATES

SEC. 3011. (a) AUTHORIZATION.—There is authorized to be appropriated \$25,000,000 for each of the fiscal years 1978 and 1979<sup>19</sup> \$20,000,000 for fiscal year 1980, \$35,000,000 for fiscal year 1981, \$40,000,000 for the fiscal year 1982, \$55,000,000 for the fiscal year 1985, \$60,000,000 for the fiscal year 1986, \$60,000,000 for the fiscal year 1987, and \$60,000,000 for the fiscal year 1988 to be used to make grants to the States for purposes of assisting the States in the development and implementation of authorized State hazardous waste programs.

(b) ALLOCATION.—Amounts authorized to be appropriated under subsection (a) shall be allocated among the States on the basis of regulations promulgated by the Administrator, after consultation with the States, which take into account, the extent to which hazardous waste is generated, transported, treated, stored, and disposed of within such State, the extent of exposure of human beings and the environment within such State to such waste, and such other factors as the Administrator deems appropriate.

(c) ACTIVITIES INCLUDED.—State hazardous waste programs for which grants may be made under subsection (a) may include (but shall not be limited to) planning for hazardous waste treatment, storage and disposal facilities, and the development and execution of programs to protect health and the environment from inactive facilities which may contain hazardous waste.

【42 U.S.C. 6931】

#### HAZARDOUS WASTE SITE INVENTORY

SEC. 3012. (a) STATE INVENTORY PROGRAMS.—Each State shall, as expeditiously as practicable, undertake a continuing program to compile, publish, and submit to the Administrator an inventory describing the location of each site within such State at which hazardous waste has at any time been stored or disposed of. Such inventory shall contain—

- (1) a description of the location of the sites at which any such storage or disposal has taken place before the date on which permits are required under section 3005 for such storage or disposal;
- (2) such information relating to the amount, nature, and toxicity of the hazardous waste at each such site as may be practicable to obtain and as may be necessary to determine the extent of any health hazard which may be associated with such site;
- (3) the name and address, or corporate headquarters of, the owner of each such site, determined as of the date of preparation of the inventory;

<sup>19</sup>So in law. Probably should be followed by a comma.

(4) an identification of the types or techniques of waste treatment or disposal which have been used at each such site; and

(5) information concerning the current status of the site, including information respecting whether or not hazardous waste is currently being treated or disposed of at such site (and if not, the date on which such activity ceased) and information respecting the nature of any other activity currently carried out at such site.

For purposes of assisting the States in compiling information under this section, the Administrator shall make available to each State undertaking a program under this section such information as is available to him concerning the items specified in paragraphs (1) through (5) with respect to the sites within such State, including such information as the Administrator is able to obtain from other agencies or departments of the United States and from surveys and studies carried out by any committee or subcommittee of the Congress. Any State may exercise the authority of section 3007 for purposes of this section in the same manner and to the same extent as provided in such section in the case of States having an authorized hazardous waste program, and any State may by order require any person to submit such information as may be necessary to compile the data referred to in paragraphs (1) through (5).

(b) ENVIRONMENTAL PROTECTION AGENCY PROGRAM.—If the Administrator determines that any State program under subsection (a) is not adequately providing information respecting the sites in such State referred to in subsection (a), the Administrator shall notify the State. If within ninety days following such notification, the State program has not been revised or amended in such manner as will adequately provide such information, the Administrator shall carry out the inventory program in such State. In any such case—

(1) the Administrator shall have the authorities provided with respect to State programs under subsection (a);

(2) the funds allocated under subsection (c) for grants to States under this section may be used by the Administrator for carrying out such program in such State; and

(3) no further expenditure may be made for grants to such State under this section until such time as the Administrator determines that such State is carrying out, or will carry out, an inventory program which meets the requirements of this section.

(c) GRANTS.—(1) Upon receipt of an application submitted by any State to carry out a program under this section, the Administrator may make grants to the States for purposes of carrying out such a program. Grants under this section shall be allocated among the several States by the Administrator based upon such regulations as he prescribes to carry out the purposes of this section. The Administrator may make grants to any State which has conducted an inventory program which effectively carried out the purposes of this section before the date of the enactment of the Solid Waste Disposal Act Amendments of 1980 to reimburse such State for all, or any portion of, the costs incurred by such State in conducting such program.

(2) There are authorized to be appropriated to carry out this section \$25,000,000 for each of the fiscal years 1985 through 1988.

(d) NO IMPEDIMENT TO IMMEDIATE REMEDIAL ACTION.—Nothing in this section shall be construed to provide that the Administrator or any State should, pending completion of the inventory required under this section, postpone undertaking any enforcement or remedial action with respect to any site at which hazardous waste has been treated, stored, or disposed of.

【42 U.S.C. 6933】

#### MONITORING, ANALYSIS, AND TESTING

SEC. 3013. (a) AUTHORITY OF ADMINISTRATOR.—If the Administrator determines, upon receipt of any information, that—

(1) the presence of any hazardous waste at a facility or site at which hazardous waste is, or has been, stored, treated, or disposed of, or

(2) the release of any such waste from such facility or site may present a substantial hazard to human health or the environment, he may issue an order requiring the owner or operator of such facility or site to conduct such monitoring, testing, analysis, and reporting with respect to such facility or site as the Administrator deems reasonable to ascertain the nature and extent of such hazard.

(b) PREVIOUS OWNERS AND OPERATORS.—In the case of any facility or site not in operation at the time a determination is made under subsection (a) with respect to the facility or site, if the Administrator finds that the owner of such facility or site could not reasonably be expected to have actual knowledge of the presence of hazardous waste at such facility or site and of its potential for release, he may issue an order requiring the most recent previous owner or operator of such facility or site who could reasonably be expected to have such actual knowledge to carry out the actions referred to in subsection (a).

(c) PROPOSAL.—An order under subsection (a) or (b) shall require the person to whom such order is issued to submit to the Administrator within 30 days from the issuance of such order a proposal for carrying out the required monitoring, testing, analysis, and reporting. The Administrator may, after providing such person with an opportunity to confer with the Administrator respecting such proposal, require such person to carry out such monitoring, testing, analysis, and reporting in accordance with such proposal, and such modifications in such proposal as the Administrator deems reasonable to ascertain the nature and extent of the hazard.

(d) MONITORING, ETC., CARRIED OUT BY ADMINISTRATOR.—(1) If the Administrator determines that no owner or operator referred to in subsection (a) or (b) is able to conduct monitoring, testing, analysis, or reporting satisfactory to the Administrator, if the Administrator deems any such action carried out by an owner or operator to be unsatisfactory, or if the Administrator cannot initially determine that there is an owner or operator referred to in subsection (a) or (b) who is able to conduct such monitoring, testing, analysis, or reporting, he may—



(A) conduct monitoring, testing, or analysis (or any combination thereof) which he deems reasonable to ascertain the nature and extent of the hazard associated with the site concerned, or

(B) authorize a State or local authority or other person to carry out any such action, and require, by order, the owner or operator referred to in subsection (a) or (b) to reimburse the Administrator or other authority or person for the costs of such activity.

(2) No order may be issued under this subsection requiring reimbursement of the costs of any action carried out by the Administrator which confirms the results of an order issued under subsection (a) or (b).

(3) For purposes of carrying out this subsection, the Administrator or any authority or other person authorized under paragraph (1), may exercise the authorities set forth in section 3007.

(e) ENFORCEMENT.—The Administrator may commence a civil action against any person who fails or refuses to comply with any order issued under this section. Such action shall be brought in the United States district court in which the defendant is located, resides, or is doing business. Such court shall have jurisdiction to require compliance with such order and to assess a civil penalty of not to exceed \$5,000 for each day during which such failure or refusal occurs.

【42 U.S.C. 6934】

#### RESTRICTIONS ON RECYCLED OIL

SEC. 3014. (a) IN GENERAL.—Not later than one year after the date of the enactment of this section, the Administrator shall promulgate regulations establishing such performance standards and other requirements as may be necessary to protect the public health and the environment from hazards associated with recycled oil. In developing such regulations, the Administrator shall conduct an analysis of the economic impact of the regulations on the oil recycling industry. The Administrator shall ensure that such regulations do not discourage the recovery or recycling of used oil, consistent with the protection of human health and the environment.

(b) IDENTIFICATION OR LISTING OF USED OIL AS HAZARDOUS WASTE.—Not later than twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 the Administrator shall propose whether to list or identify used automobile and truck crankcase oil as hazardous waste under section 3001. Not later than twenty-four months after such date of enactment, the Administrator shall make a final determination whether to list or identify used automobile and truck crankcase oil and other used oil as hazardous wastes under section 3001.

(c) USED OIL WHICH IS RECYCLED.—(1) With respect to generators and transporters of used oil identified or listed as a hazardous waste under section 3001, the standards promulgated under sec-

tion<sup>20</sup> 3001(d), 3002, and 3003 of this subtitle shall not apply to such used oil if such used oil is recycled.

(2)(A) In the case of used oil which is exempt under paragraph (1), not later than twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate such standards under this subsection regarding the generation and transportation of used oil which is recycled as may be necessary to protect human health and the environment. In promulgating such regulations with respect to generators, the Administrator shall take into account the effect of such regulations on environmentally acceptable types of used oil recycling and the effect of such regulations on small quantity generators and generators which are small businesses (as defined by the Administrator).

(B) The regulations promulgated under this subsection shall provide that no generator of used oil which is exempt under paragraph (1) from the standards promulgated under section<sup>20</sup> 3001(d), 3002, and 3003 shall be subject to any manifest requirement or any associated recordkeeping and reporting requirement with respect to such used oil if such generator—

(i) either—

(I) enters into an agreement or other arrangement (including an agreement or arrangement with an independent transporter or with an agent of the recycler) for delivery of such used oil to a recycling facility which has a permit under section 3005(c) (or for which a valid permit is deemed to be in effect under subsection (d)), or

(II) recycles such used oil at one or more facilities of the generator which has such a permit under section 3005 of this subtitle (or for which a valid permit is deemed to have been issued under subsection (d) of this section);

(ii) such used oil is not mixed by the generator with other types of hazardous wastes; and

(iii) the generator maintains such records relating to such used oil, including records of agreements or other arrangements for delivery of such used oil to any recycling facility referred to in clause (i)(I), as the Administrator deems necessary to protect human health and the environment.

(3) The regulations under this subsection regarding the transportation of used oil which is exempt from the standards promulgated under section<sup>20</sup> 3001(d), 3002, and 3003 under paragraph (1) shall require the transporters of such used oil to deliver such used oil to a facility which has a valid permit under section 3005 of this subtitle or which is deemed to have a valid permit under subsection (d) of this section. The Administrator shall also establish other standards for such transporters as may be necessary to protect human health and the environment.

(d) PERMITS.—(1) The owner or operator of a facility which recycles used oil which is exempt under subsection (c)(1), shall be deemed to have a permit under this subsection for all such treatment or recycling (and any associated tank or container storage) if such owner and operator comply with standards promulgated by

<sup>20</sup>So in law. Probably should be “sections”.

the Administrator under section 3004; except that the Administrator may require such owners and operators to obtain an individual permit under section 3005(c) if he determines that an individual permit is necessary to protect human health and the environment.

(2) Notwithstanding any other provision of law, any generator who recycles used oil which is exempt under subsection (c)(1) shall not be required to obtain a permit under section 3005(c) with respect to such used oil until the Administrator has promulgated standards under section 3004 regarding the recycling of such used oil.

[42 U.S.C. 6935]

#### EXPANSION DURING INTERIM STATUS

SEC. 3015. (a) WASTE PILES.—The owner or operator of a waste pile qualifying for the authorization to operate under section 3005(e) shall be subject to the same requirements for liners and leachate collection systems or equivalent protection provided in regulations promulgated by the Administrator under section 3004 before October 1, 1982, or revised under section 3004(o) (relating to minimum technological requirements), for new facilities receiving individual permits under subsection (c) of section 3005, with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the waste management area identified in the permit application submitted under section 3005, and with respect to waste received beginning six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

(b) LANDFILLS AND SURFACE IMPOUNDMENTS.—(1) The owner or operator of a landfill or surface impoundment qualifying for the authorization to operate under section 3005(e) shall be subject to the requirements of section 3004(o) (relating to minimum technological requirements), with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the waste management area identified in the permit application submitted under this section, and with respect to waste received beginning 6 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

(2) The owner or operator of each unit referred to in paragraph (1) shall notify the Administrator (or the State, if appropriate) at least sixty days prior to receiving waste. The Administrator (or the State) shall require the filing, within six months of receipt of such notice, of an application for a final determination regarding the issuance of a permit for each facility submitting such notice.

(3) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of this section and in good faith compliance with the Administrator's regulations and guidance documents governing liners and leachate collection systems, no liner or leachate collection system which is different from that which was so installed pursuant to this section shall be required for such unit by the Administrator when issuing the first permit under section 3005 to such facility, except that the Administrator shall not be precluded from requiring installation of

a new liner when the Administrator has reason to believe that any liner installed pursuant to the requirements of this section is leaking. The Administrator may, under section 3004, amend the requirements for liners and leachate collection systems required under this section as may be necessary to provide additional protection for human health and the environment.

[42 U.S.C. 6936]

#### INVENTORY OF FEDERAL AGENCY HAZARDOUS WASTE FACILITIES

SEC. 3016. (a) Each Federal agency shall undertake a continuing program to compile, publish, and submit to the Administrator (and to the State in the case of sites in States having an authorized hazardous waste program) an inventory of each site which the Federal agency owns or operates or has owned or operated at which hazardous waste is stored, treated, or disposed of or has been disposed of at any time. The inventory shall be submitted every two years beginning January 31, 1986. Such inventory shall be available to the public as provided in section 3007(b). Information previously submitted by a Federal agency under section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, or under section 3005 or 3010 of this Act, or under this section need not be resubmitted except that the agency shall update any previous submission to reflect the latest available data and information. The inventory shall include each of the following:

(1) A description of the location of each site at which any such treatment, storage, or disposal has taken place before the date on which permits are required under section 3005 for such storage, treatment, or disposal, and where hazardous waste has been disposed, a description of hydrogeology of the site and the location of withdrawal wells and surface water within one mile of the site.

(2) Such information relating to the amount, nature, and toxicity of the hazardous waste in each site as may be necessary to determine the extent of any health hazard which may be associated with any site.

(3) Information on the known nature and extent of environmental contamination at each site, including a description of the monitoring data obtained.

(4) Information concerning the current status of the site, including information respecting whether or not hazardous waste is currently being treated, stored, or disposed of at such site (and if not, the date on which such activity ceased) and information respecting the nature of any other activity currently carried out at such site.

(5) A list of sites at which hazardous waste has been disposed and environmental monitoring data has not been obtained, and the reasons for the lack of monitoring data at each site.

(6) A description of response actions undertaken or contemplated at contaminated sites.



(7) An identification of the types of techniques of waste treatment, storage, or disposal which have been used at each site.

(8) The name and address and responsible Federal agency for each site, determined as of the date of preparation of the inventory.

(b) ENVIRONMENTAL PROTECTION AGENCY PROGRAM.—If the Administrator determines that any Federal agency under subsection (a) is not adequately providing information respecting the sites referred to in subsection (a), the Administrator shall notify the chief official of such agency. If within ninety days following such notification, the Federal agency has not undertaken a program to adequately provide such information, the Administrator shall carry out the inventory program for such agency.

[42 U.S.C. 6937]

#### EXPORT OF HAZARDOUS WASTE

SEC. 3017. (a) IN GENERAL.—Beginning twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, no person shall export any hazardous waste identified or listed under this subtitle unless<sup>21</sup>

(1)(A) such person has provided the notification required in subsection (c) of this section,

(B) the government of the receiving country has consented to accept such hazardous waste,

(C) a copy of the receiving country's written consent is attached to the manifest accompanying each waste shipment, and

(D) the shipment conforms with the terms of the consent of the government of the receiving country required pursuant to subsection (e), or

(2) the United States and the government of the receiving country have entered into an agreement as provided for in subsection (f) and the shipment conforms with the terms of such agreement.

(b) REGULATIONS.—Not later than twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall promulgate the regulations necessary to implement this section. Such regulations shall become effective one hundred and eighty days after promulgation.

(c) NOTIFICATION.—Any person who intends to export a hazardous waste identified or listed under this subtitle beginning twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, shall, before such hazardous waste is scheduled to leave the United States, provide notification to the Administrator. Such notification shall contain the following information:

(1) the name and address of the exporter;

(2) the types and estimated quantities of hazardous waste to be exported;

<sup>21</sup>So in law. Probably should be followed by a dash.

(3) the estimated frequency or rate at which such waste is to be exported; and the period of time over which such waste is to be exported;

(4) the ports of entry;

(5) a description of the manner in which such hazardous waste will be transported to and treated, stored, or disposed in the receiving country; and

(6) the name and address of the ultimate treatment, storage or disposal facility.

(d) PROCEDURES FOR REQUESTING CONSENT OF THE RECEIVING COUNTRY.—Within thirty days of the Administrator's receipt of a complete notification under this section, the Secretary of State, acting on behalf of the Administrator, shall—

(1) forward a copy of the notification to the government of the receiving country;

(2) advise the government that United States law prohibits the export of hazardous waste unless the receiving country consents to accept the hazardous waste;

(3) request the government to provide the Secretary with a written consent or objection to the terms of the notification; and

(4) forward to the government of the receiving country a description of the Federal regulations which would apply to the treatment, storage, and disposal of the hazardous waste in the United States.

(e) CONVEYANCE OF WRITTEN CONSENT TO EXPORTER.—Within thirty days of receipt by the Secretary of State of the receiving country's written consent or objection (or any subsequent communication withdrawing a prior consent or objection), the Administrator shall forward such a consent, objection, or other communication to the exporter.

(f) INTERNATIONAL AGREEMENTS.—Where there exists an international agreement between the United States and the government of the receiving country establishing notice, export, and enforcement procedures for the transportation, treatment, storage, and disposal of hazardous wastes, only the requirements of subsections (a)(2) and (g) shall apply.

(g) REPORTS.—After the date of enactment of the Hazardous and Solid Waste Amendments of 1984, any person who exports any hazardous waste identified or listed under section 3001 of this subtitle shall file with the Administrator no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all such hazardous waste exported during the previous calendar year.

(h) OTHER STANDARDS.—Nothing in this section shall preclude the Administrator from establishing other standards for the export of hazardous wastes under section 3002 or section 3003 of this subtitle.

[42 U.S.C. 6938]

#### DOMESTIC SEWAGE

SEC. 3018. (a) REPORT.—The Administrator shall, not later than 15 months after the date of enactment of the Hazardous and

Solid Waste Amendments of 1984, submit a report to the Congress concerning those substances identified or listed under section 3001 which are not regulated under this subtitle by reason of the exclusion for mixtures of domestic sewage and other wastes that pass through a sewer system to a publicly owned treatment works. Such report shall include the types, size and number of generators which dispose of such substances in this manner, the types and quantities disposed of in this manner, and the identification of significant generators, wastes, and waste constituents not regulated under existing Federal law or regulated in a manner sufficient to protect human health and the environment.

(b) REVISIONS OF REGULATIONS.—Within eighteen months after submitting the report specified in subsection (a), the Administrator shall revise existing regulations and promulgate such additional regulations pursuant to this subtitle (or any other authority of the Administrator, including section 307 of the Federal Water Pollution Control Act) as are necessary to assure that substances identified or listed under section 3001 which pass through a sewer system to a publicly owned treatment works are adequately controlled to protect human health and the environment.

(c) REPORT ON WASTEWATER LAGOONS.—The Administrator shall, within thirty-six months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, submit a report to Congress concerning wastewater lagoons at publicly owned treatment works and their effect on groundwater quality. Such report shall include—

- (1) the number and size of such lagoons;
- (2) the types and quantities of waste contained in such lagoons;
- (3) the extent to which such waste has been or may be released from such lagoons and contaminate ground water; and
- (4) available alternatives for preventing or controlling such releases.

The Administrator may utilize the authority of sections 3007 and 3013 for the purpose of completing such report.

(d) APPLICATION OF SECTION 3010 AND SECTION 3007.—The provisions of sections 3007 and 3010 shall apply to solid or dissolved materials in domestic sewage to the same extent and in the same manner as such provisions apply to hazardous waste.

【42 U.S.C. 6939】

#### EXPOSURE INFORMATION AND HEALTH ASSESSMENTS

SEC. 3019. (a) EXPOSURE INFORMATION.—Beginning on the date nine months after the enactment of the Hazardous and Solid Waste Amendments of 1984, each application for a final determination regarding a permit under section 3005(c) for a landfill or surface impoundment shall be accompanied by information reasonably ascertainable by the owner or operator on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information must address:

(1) reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(2) the potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under paragraph (1); and

(3) the potential magnitude and nature of the human exposure resulting from such releases.

The owner or operator of a landfill or surface impoundment for which an application for such a final determination under section 3005(c) has been submitted prior to the date of enactment of the Hazardous and Solid Waste Amendments of 1984 shall submit the information required by this subsection to the Administrator (or the State, in the case of a State with an authorized program) no later than the date nine months after such date of enactment.

(b) HEALTH ASSESSMENTS.—(1) The Administrator (or the State, in the case of a State with an authorized program) shall make the information required by subsection (a), together with other relevant information, available to the Agency for Toxic Substances and Disease Registry established by section 104(i) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980.

(2) Whenever in the judgment of the Administrator, or the State (in the case of a State with an authorized program), a landfill or a surface impoundment poses a substantial potential risk to human health, due to the existence of releases of hazardous constituents, the magnitude of contamination with hazardous constituents which may be the result of a release, or the magnitude of the population exposed to such release or contamination, the Administrator or the State (with the concurrence of the Administrator) may request the Administrator of the Agency for Toxic Substances and Disease Registry to conduct a health assessment in connection with such facility and take other appropriate action with respect to such risks as authorized by section 104 (b) and (i) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980. If funds are provided in connection with such request the Administrator of such Agency shall conduct such health assessment.

(c) MEMBERS OF THE PUBLIC.—Any member of the public may submit evidence of releases of or exposure to hazardous constituents from such a facility, or as to the risks or health effects associated with such releases or exposure, to the Administrator of the Agency for Toxic Substances and Disease Registry, the Administrator, or the State (in the case of a State with an authorized program).

(d) PRIORITY.—In determining the order in which to conduct health assessments under this subsection, the Administrator of the Agency for Toxic Substances and Disease Registry shall give priority to those facilities or sites at which there is documented evidence of release of hazardous constituents, at which the potential risk to human health appears highest, and for which in the judgment of the Administrator of such Agency existing health assessment data is inadequate to assess the potential risk to human health as provided in subsection (f).



(e) PERIODIC REPORTS.—The Administrator of such Agency shall issue periodic reports which include the results of all the assessments carried out under this section. Such assessments or other activities shall be reported after appropriate peer review.

(f) DEFINITION.—For the purposes of this section, the term “health assessments” shall include preliminary assessments of the potential risk to human health posed by individual sites and facilities subject to this section, based on such factors as the nature and extent of contamination, the existence of potential for pathways of human exposure (including ground or surface water contamination, air emissions, and food chain contamination), the size and potential susceptibility of the community within the likely pathways of exposure, the comparison of expected human exposure levels to the short-term and long-term health effects associated with identified contaminants and any available recommended exposure or tolerance limits for such contaminants, and the comparison of existing morbidity and mortality data on diseases that may be associated with the observed levels of exposure. The assessment shall include an evaluation of the risks to the potentially affected population from all sources of such contaminants, including known point or nonpoint sources other than the site or facility in question. A purpose of such preliminary assessments shall be to help determine whether full-scale health or epidemiological studies and medical evaluations of exposed populations shall be undertaken.

(g) COST RECOVERY.—In any case in which a health assessment performed under this section discloses the exposure of a population to the release of a hazardous substance, the costs of such health assessment may be recovered as a cost of response under section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 from persons causing or contributing to such release of such hazardous substance or, in the case of multiple releases contributing to such exposure, to all such release.

[42 U.S.C. 6939a]

#### INTERIM CONTROL OF HAZARDOUS WASTE INJECTION

SEC. 3020. (a) UNDERGROUND SOURCE OF DRINKING WATER.—No hazardous waste may be disposed of by underground injection—

- (1) into a formation which contains (within one-quarter mile of the well used for such underground injection) an underground source of drinking water; or
- (2) above such a formation.

The prohibitions established under this section shall take effect 6 months after the enactment of the Hazardous and Solid Waste Amendments of 1984 except in the case of any State in which identical or more stringent prohibitions are in effect before such date under the Safe Drinking Water Act.

(b) ACTIONS UNDER CERCLA.—Subsection (a) shall not apply to the injection of contaminated ground water into the aquifer from which it was withdrawn, if—

- (1) such injection is—

- (A) a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, or
- (B) part of corrective action required under this title<sup>22</sup> intended to clean up such contamination;
- (2) such contaminated ground water is treated to substantially reduce hazardous constituents prior to such injection; and
- (3) such response action or corrective action will, upon completion, be sufficient to protect human health and the environment.
- (c) ENFORCEMENT.—In addition to enforcement under the provisions of this Act, the prohibitions established under paragraphs (1) and (2) of subsection (a) shall be enforceable under the Safe Drinking Water Act in any State—
- (1) which has adopted identical or more stringent prohibitions under part C of the Safe Drinking Water Act and which has assumed primary enforcement responsibility under that Act for enforcement of such prohibitions; or
- (2) in which the Administrator has adopted identical or more stringent prohibitions under the Safe Drinking Water Act and is exercising primary enforcement responsibility under that Act for enforcement of such prohibitions.
- (d) The terms “primary enforcement responsibility”, “underground source of drinking water”, “formation” and “well” have the same meanings as provided in regulations of the Administrator under the Safe Drinking Water Act. The term “Safe Drinking Water Act” means title XIV of the Public Health Service Act.

[42 U.S.C. 6939b]

#### SEC. 3021. MIXED WASTE INVENTORY REPORTS AND PLAN.

##### (a) MIXED WASTE INVENTORY REPORTS.—

(1) REQUIREMENT.—Not later than 180 days after the date of the enactment of the Federal Facility Compliance Act of 1992, the Secretary of Energy shall submit to the Administrator and to the Governor of each State in which the Department of Energy stores or generates mixed wastes the following reports:

(A) A report containing a national inventory of all such mixed wastes, regardless of the time they were generated, on a State-by-State basis.

(B) A report containing a national inventory of mixed waste treatment capacities and technologies.

(2) INVENTORY OF WASTES.—The report required by paragraph (1)(A) shall include the following:

(A) A description of each type of mixed waste at each Department of Energy facility in each State, including, at a minimum, the name of the waste stream.

(B) The amount of each type of mixed waste currently stored at each Department of Energy facility in each State, set forth separately by mixed waste that is subject to the land disposal prohibition requirements of section 3004 and

<sup>22</sup>So in law. Probably should be followed by a comma.

mixed waste that is not subject to such prohibition requirements.

(C) An estimate of the amount of each type of mixed waste the Department expects to generate in the next 5 years at each Department of Energy facility in each State.

(D) A description of any waste minimization actions the Department has implemented at each Department of Energy facility in each State for each mixed waste stream.

(E) The EPA hazardous waste code for each type of mixed waste containing waste that has been characterized at each Department of Energy facility in each State.

(F) An inventory of each type of waste that has not been characterized by sampling and analysis at each Department of Energy facility in each State.

(G) The basis for the Department's determination of the applicable hazardous waste code for each type of mixed waste at each Department of Energy facility and a description of whether the determination is based on sampling and analysis conducted on the waste or on the basis of process knowledge.

(H) A description of the source of each type of mixed waste at each Department of Energy facility in each State.

(I) The land disposal prohibition treatment technology or technologies specified for the hazardous waste component of each type of mixed waste at each Department of Energy facility in each State.

(J) A statement of whether and how the radionuclide content of the waste alters or affects use of the technologies described in subparagraph (I).

(3) INVENTORY OF TREATMENT CAPACITIES AND TECHNOLOGIES.—The report required by paragraph (1)(B) shall include the following:

(A) An estimate of the available treatment capacity for each waste described in the report required by paragraph (1)(A) for which treatment technologies exist.

(B) A description, including the capacity, number and location, of each treatment unit considered in calculating the estimate under subparagraph (A).

(C) A description, including the capacity, number and location, of any existing treatment unit that was not considered in calculating the estimate under subparagraph (A) but that could, alone or in conjunction with other treatment units, be used to treat any of the wastes described in the report required by paragraph (1)(A) to meet the requirements of regulations promulgated pursuant to section 3004(m).

(D) For each unit listed in subparagraph (C), a statement of the reasons why the unit was not included in calculating the estimate under subparagraph (A).

(E) A description, including the capacity, number, location, and estimated date of availability, of each treatment unit currently proposed to increase the treatment capacities estimated under subparagraph (A).

(F) For each waste described in the report required by paragraph (1)(A) for which the Department has determined no treatment technology exists, information sufficient to support such determination and a description of the technological approaches the Department anticipates will need to be developed to treat the waste.

(4) COMMENTS AND REVISIONS.—Not later than 90 days after the date of the submission of the reports by the Secretary of Energy under paragraph (1), the Administrator and each State which received the reports shall submit any comments they may have concerning the reports to the Department of Energy. The Secretary of Energy shall consider and publish the comments prior to publication of the final report.

(5) REQUESTS FOR ADDITIONAL INFORMATION.—Nothing in this subsection limits or restricts the authority of States or the Administrator to request additional information from the Secretary of Energy.

(b) PLAN FOR DEVELOPMENT OF TREATMENT CAPACITIES AND TECHNOLOGIES.—

(1) PLAN REQUIREMENT.—(A)(i) For each facility at which the Department of Energy generates or stores mixed wastes, except any facility subject to a permit, agreement, or order described in clause (ii), the Secretary of Energy shall develop and submit, as provided in paragraph (2), a plan for developing treatment capacities and technologies to treat all of the facility's mixed wastes, regardless of the time they were generated, to the standards promulgated pursuant to section 3004(m).

(ii) Clause (i) shall not apply with respect to any facility subject to any permit establishing a schedule for treatment of such wastes, or any existing agreement or administrative or judicial order governing the treatment of such wastes, to which the State is a party.

(B) Each plan shall contain the following:

(i) For mixed wastes for which treatment technologies exist, a schedule for submitting all applicable permit applications, entering into contracts, initiating construction, conducting systems testing, commencing operations, and processing backlogged and currently generated mixed wastes.

(ii) For mixed wastes for which no treatment technologies exist, a schedule for identifying and developing such technologies, identifying the funding requirements for the identification and development of such technologies, submitting treatability study exemptions, and submitting research and development permit applications.

(iii) For all cases where the Department proposes radionuclide separation of mixed wastes, or materials derived from mixed wastes, it shall provide an estimate of the volume of waste generated by each case of radionuclide separation, the volume of waste that would exist or be generated without radionuclide separation, the estimated costs of waste treatment and disposal if radionuclide separation is used compared to the estimated costs if it is not



used, and the assumptions underlying such waste volume and cost estimates.

(C) A plan required under this subsection may provide for centralized, regional, or on-site treatment of mixed wastes, or any combination thereof.

(2) REVIEW AND APPROVAL OF PLAN.—(A) For each facility that is located in a State (i) with authority under State law to prohibit land disposal of mixed waste until the waste has been treated and (ii) with both authority under State law to regulate the hazardous components of mixed waste and authorization from the Environmental Protection Agency under section 3006 to regulate the hazardous components of mixed waste, the Secretary of Energy shall submit the plan required under paragraph (1) to the appropriate State regulatory officials for their review and approval, modification, or disapproval. In reviewing the plan, the State shall consider the need for regional treatment facilities. The State shall consult with the Administrator and any other State in which a facility affected by the plan is located and consider public comments in making its determination on the plan. The State shall approve, approve with modifications, or disapprove the plan within 6 months after receipt of the plan.

(B) For each facility located in a State that does not have the authority described in subparagraph (A), the Secretary shall submit the plan required under paragraph (1) to the Administrator of the Environmental Protection Agency for review and approval, modification, or disapproval. A copy of the plan also shall be provided by the Secretary to the State in which such facility is located. In reviewing the plan, the Administrator shall consider the need for regional treatment facilities. The Administrator shall consult with the State or States in which any facility affected by the plan is located and consider public comments in making a determination on the plan. The Administrator shall approve, approve with modifications, or disapprove the plan within 6 months after receipt of the plan.

(C) Upon the approval of a plan under this paragraph by the Administrator or a State, the Administrator shall issue an order under section 3008(a), or the State shall issue an order under appropriate State authority, requiring compliance with the approved plan.

(3) PUBLIC PARTICIPATION.—Upon submission of a plan by the Secretary of Energy to the Administrator or a State, and before approval of the plan by the Administrator or a State, the Administrator or State shall publish a notice of the availability of the submitted plan and make such submitted plan available to the public on request.

(4) REVISIONS OF PLAN.—If any revisions of an approved plan are proposed by the Secretary of Energy or required by the Administrator or a State, the provisions of paragraphs (2) and (3) shall apply to the revisions in the same manner as they apply to the original plan.

(5) WAIVER OF PLAN REQUIREMENT.—(A) A State may waive the requirement for the Secretary of Energy to develop and submit a plan under this subsection for a facility located

in the State if the State (i) enters into an agreement with the Secretary of Energy that addresses compliance at that facility with section 3004(j) with respect to mixed waste, and (ii) issues an order requiring compliance with such agreement and which is in effect.

(B) Any violation of an agreement or order referred to in subparagraph (A) is subject to the waiver of sovereign immunity contained in section 6001(a).

(c) SCHEDULE AND PROGRESS REPORTS.—

(1) SCHEDULE.—Not later than 6 months after the date of the enactment of the Federal Facility Compliance Act of 1992, the Secretary of Energy shall publish in the Federal Register a schedule for submitting the plans required under subsection (b).

(2) PROGRESS REPORTS.—(A) Not later than the deadlines specified in subparagraph (B), the Secretary of Energy shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a progress report containing the following:

(i) An identification, by facility, of the plans that have been submitted to States or the Administrator of the Environmental Protection Agency pursuant to subsection (b).

(ii) The status of State and Environmental Protection Agency review and approval of each such plan.

(iii) The number of orders requiring compliance with such plans that are in effect.

(iv) For the first 2 reports required under this paragraph, an identification of the plans required under such subsection (b) that the Secretary expects to submit in the 12-month period following submission of the report.

(B) The Secretary of Energy shall submit a report under subparagraph (A) not later than 12 months after the date of the enactment of the Federal Facility Compliance Act of 1992, 24 months after such date, and 36 months after such date.

[42 U.S.C. 6939c]

#### SEC. 3022. PUBLIC VESSELS.

(a) WASTE GENERATED ON PUBLIC VESSELS.—Any hazardous waste generated on a public vessel shall not be subject to the storage, manifest, inspection, or recordkeeping requirements of this Act until such waste is transferred to a shore facility, unless—

(1) the waste is stored on the public vessel for more than 90 days after the public vessel is placed in reserve or is otherwise no longer in service; or

(2) the waste is transferred to another public vessel within the territorial waters of the United States and is stored on such vessel or another public vessel for more than 90 days after the date of transfer.

(b) COMPUTATION OF STORAGE PERIOD.—For purposes of subsection (a), the 90-day period begins on the earlier of—

(1) the date on which the public vessel on which the waste was generated is placed in reserve or is otherwise no longer in service; or

(2) the date on which the waste is transferred from the public vessel on which the waste was generated to another public vessel within the territorial waters of the United States; and continues, without interruption, as long as the waste is stored on the original public vessel (if in reserve or not in service) or another public vessel.

(c) DEFINITIONS.—For purposes of this section:

(1) The term “public vessel” means a vessel owned or bareboat chartered and operated by the United States, or by a foreign nation, except when the vessel is engaged in commerce.

(2) The terms “in reserve” and “in service” have the meanings applicable to those terms under section 8663 and sections 8674 through 8678 of title 10, United States Code, and regulations prescribed under those sections.

(d) RELATIONSHIP TO OTHER LAW.—Nothing in this section shall be construed as altering or otherwise affecting the provisions of section 8681 of title 10, United States Code.

[42 U.S.C. 6939d]

#### SEC. 3023. FEDERALLY OWNED TREATMENT WORKS.

(a) IN GENERAL.—For purposes of section 1004(27), the phrase “but does not include solid or dissolved material in domestic sewage” shall apply to any solid or dissolved material introduced by a source into a federally owned treatment works if—

(1) such solid or dissolved material is subject to a pretreatment standard under section 307 of the Federal Water Pollution Control Act (33 U.S.C. 1317), and the source is in compliance with such standard;

(2) for a solid or dissolved material for which a pretreatment standard has not been promulgated pursuant to section 307 of the Federal Water Pollution Control Act (33 U.S.C. 1317), the Administrator has promulgated a schedule for establishing such a pretreatment standard which would be applicable to such solid or dissolved material not later than 7 years after the date of enactment of this section, such standard is promulgated on or before the date established in the schedule, and after the effective date of such standard the source is in compliance with such standard;

(3) such solid or dissolved material is not covered by paragraph (1) or (2) and is not prohibited from land disposal under subsections<sup>23</sup> (d), (e), (f), or (g) of section 3004 because such material has been treated in accordance with section 3004(m); or

(4) notwithstanding paragraphs<sup>23</sup> (1), (2), or (3), such solid or dissolved material is generated by a household or person which generates less than 100 kilograms of hazardous waste per month unless such solid or dissolved material would otherwise be an acutely hazardous waste and subject to standards, regulations, or other requirements under this Act notwithstanding the quantity generated.

(b) PROHIBITION.—It is unlawful to introduce into a federally owned treatment works any pollutant that is a hazardous waste.

<sup>23</sup>So in law. Probably should be singular.

(c) ENFORCEMENT.—(1) Actions taken to enforce this section shall not require closure of a treatment works if the hazardous waste is removed or decontaminated and such removal or decontamination is adequate, in the discretion of the Administrator or, in the case of an authorized State, of the State, to protect human health and the environment.

(2) Nothing in this subsection shall be construed to prevent the Administrator or an authorized State from ordering the closure of a treatment works if the Administrator or State determines such closure is necessary for protection of human health and the environment.

(3) Nothing in this subsection shall be construed to affect any other enforcement authorities available to the Administrator or a State under this subtitle.

(d) DEFINITION.—For purposes of this section, the term “federally owned treatment works” means a facility that is owned and operated by a department, agency, or instrumentality of the Federal Government treating wastewater, a majority of which is domestic sewage, prior to discharge in accordance with a permit issued under section 402 of the Federal Water Pollution Control Act.

(e) SAVINGS CLAUSE.—Nothing in this section shall be construed as affecting any agreement, permit, or administrative or judicial order, or any condition or requirement contained in such an agreement, permit, or order, that is in existence on the date of the enactment of this section and that requires corrective action or closure at a federally owned treatment works or solid waste management unit or facility related to such a treatment works.

[42 U.S.C. 6939e]

#### SEC. 3024. HAZARDOUS WASTE ELECTRONIC MANIFEST SYSTEM.

(a) DEFINITIONS.—In this section:

(1) BOARD.—The term “Board” means the Hazardous Waste Electronic Manifest System Advisory Board established under subsection (f).

(2) FUND.—The term “Fund” means the Hazardous Waste Electronic Manifest System Fund established by subsection (d).

(3) PERSON.—The term “person” includes an individual, corporation (including a Government corporation), company, association, firm, partnership, society, joint stock company, trust, municipality, commission, Federal agency, State, political subdivision of a State, or interstate body.

(4) SYSTEM.—The term “system” means the hazardous waste electronic manifest system established under subsection (b).

(5) USER.—The term “user” means a hazardous waste generator, a hazardous waste transporter, an owner or operator of a hazardous waste treatment, storage, recycling, or disposal facility, or any other person that—

(A) is required to use a manifest to comply with any Federal or State requirement to track the shipment, transportation, and receipt of hazardous waste or other material that is shipped from the site of generation to an off-site facility for treatment, storage, disposal, or recycling; and



- (B)(i) elects to use the system to complete and transmit an electronic manifest format; or
- (ii) submits to the system for data processing purposes a paper copy of the manifest (or data from such a paper copy), in accordance with such regulations as the Administrator may promulgate to require such a submission.
- (b) ESTABLISHMENT.—Not later than 3 years after the date of enactment of this section, the Administrator shall establish a hazardous waste electronic manifest system that may be used by any user.
- (c) USER FEES.—
- (1) IN GENERAL.—In accordance with paragraph (4), the Administrator may impose on users such reasonable service fees as the Administrator determines to be necessary to pay costs incurred in developing, operating, maintaining, and upgrading the system, including any costs incurred in collecting and processing data from any paper manifest submitted to the system after the date on which the system enters operation.
- (2) COLLECTION OF FEES.—The Administrator shall—
- (A) collect the fees described in paragraph (1) from the users in advance of, or as reimbursement for, the provision by the Administrator of system-related services; and
- (B) deposit the fees in the Fund.
- (3) FEE STRUCTURE.—
- (A) IN GENERAL.—The Administrator, in consultation with information technology vendors, shall determine through the contract award process described in subsection (e) the fee structure that is necessary to recover the full cost to the Administrator of providing system-related services, including—
- (i) contractor costs relating to—
- (I) materials and supplies;
  - (II) contracting and consulting;
  - (III) overhead;
  - (IV) information technology (including costs of hardware, software, and related services);
  - (V) information management;
  - (VI) collection of service fees;
  - (VII) reporting and accounting; and
  - (VIII) project management; and
- (ii) costs of employment of direct and indirect Government personnel dedicated to establishing, managing, and maintaining the system.
- (B) ADJUSTMENTS IN FEE AMOUNT.—
- (i) IN GENERAL.—The Administrator, in consultation with the Board, shall increase or decrease the amount of a service fee determined under the fee structure described in subparagraph (A) to a level that will—
- (I) result in the collection of an aggregate amount for deposit in the Fund that is sufficient and not more than reasonably necessary to cover current and projected system-related costs (including any necessary system upgrades); and

(II) minimize, to the maximum extent practicable, the accumulation of unused amounts in the Fund.

(ii) EXCEPTION FOR INITIAL PERIOD OF OPERATION.—The requirement described in clause (i)(II) shall not apply to any additional fees that accumulate in the Fund, in an amount that does not exceed \$2,000,000, during the 3-year period beginning on the date on which the system enters operation.

(iii) TIMING OF ADJUSTMENTS.—Adjustments to service fees described in clause (i) shall be made—

(I) initially, at the time at which initial development costs of the system have been recovered by the Administrator such that the service fee may be reduced to reflect the elimination of the system development component of the fee; and

(II) periodically thereafter, upon receipt and acceptance of the findings of any annual accounting or auditing report under subsection (d)(3), if the report discloses a significant disparity for a fiscal year between the funds collected from service fees under this subsection for the fiscal year and expenditures made for the fiscal year to provide system-related services.

(4) CREDITING AND AVAILABILITY OF FEES.—Fees authorized under this section shall be collected and available for obligation only to the extent and in the amount provided in advance in appropriations Acts.

(d) HAZARDOUS WASTE ELECTRONIC MANIFEST SYSTEM FUND.—

(1) ESTABLISHMENT.—There is established in the Treasury of the United States a revolving fund, to be known as the “Hazardous Waste Electronic Manifest System Fund”, consisting of such amounts as are deposited in the Fund under subsection (c)(2)(B).

(2) EXPENDITURES FROM FUND.—

(A) IN GENERAL.—Only to the extent provided in advance in appropriations Acts, on request by the Administrator, the Secretary of the Treasury shall transfer from the Fund to the Administrator amounts appropriated to pay costs incurred in developing, operating, maintaining, and upgrading the system under subsection (c).

(B) USE OF FUNDS BY ADMINISTRATOR.—Fees collected by the Administrator and deposited in the Fund under this section shall be available to the Administrator subject to appropriations Acts for use in accordance with this section without fiscal year limitation.

(C) OVERSIGHT OF FUNDS.—The Administrator shall carry out all necessary measures to ensure that amounts in the Fund are used only to carry out the goals of establishing, operating, maintaining, upgrading, managing, supporting, and overseeing the system.

(3) ACCOUNTING AND AUDITING.—

(A) ACCOUNTING.—For each 2-fiscal-year period, the Administrator shall prepare and submit to the Committee

on Environment and Public Works and the Committee on Appropriations of the Senate and the Committee on Energy and Commerce and the Committee on Appropriations of the House of Representatives a report that includes—

(i) an accounting of the fees paid to the Administrator under subsection (c) and disbursed from the Fund for the period covered by the report, as reflected by financial statements provided in accordance with—

(I) the Chief Financial Officers Act of 1990 (Public Law 101–576; 104 Stat. 2838) and amendments made by that Act; and

(II) the Government Management Reform Act of 1994 (Public Law 103–356; 108 Stat. 3410) and amendments made by that Act; and

(ii) an accounting describing actual expenditures from the Fund for the period covered by the report for costs described in subsection (c)(1).

(B) AUDITING.—

(i) IN GENERAL.—For the purpose of section 3515(c) of title 31, United States Code, the Fund shall be considered a component of an Executive agency.

(ii) COMPONENTS OF AUDIT.—The annual audit required in accordance with sections 3515(b) and 3521 of title 31, United States Code, of the financial statements of activities carried out using amounts from the Fund shall include an analysis of—

(I) the fees collected and disbursed under this section;

(II) the reasonableness of the fee structure in place as of the date of the audit to meet current and projected costs of the system;

(III) the level of use of the system by users; and

(IV) the success to date of the system in operating on a self-sustaining basis and improving the efficiency of tracking waste shipments and transmitting waste shipment data.

(iii) FEDERAL RESPONSIBILITY.—The Inspector General of the Environmental Protection Agency shall—

(I) conduct the annual audit described in clause (ii); and

(II) submit to the Administrator a report that describes the findings and recommendations of the Inspector General resulting from the audit.

(e) CONTRACTS.—

(1) AUTHORITY TO ENTER INTO CONTRACTS FUNDED BY SERVICE FEES.—After consultation with the Secretary of Transportation, the Administrator may enter into 1 or more information technology contracts with entities determined to be appropriate by the Administrator (referred to in this subsection as “contractors”) for the provision of system-related services.

(2) TERM OF CONTRACT.—A contract awarded under this subsection shall have a term of not more than 10 years.

(3) ACHIEVEMENT OF GOALS.—The Administrator shall ensure, to the maximum extent practicable, that a contract awarded under this subsection—

(A) is performance-based;

(B) identifies objective outcomes; and

(C) contains performance standards that may be used to measure achievement and goals to evaluate the success of a contractor in performing under the contract and the right of the contractor to payment for services under the contract, taking into consideration that a primary measure of successful performance shall be the development of a hazardous waste electronic manifest system that—

(i) meets the needs of the user community (including States that rely on data contained in manifests);

(ii) attracts sufficient user participation and service fee revenues to ensure the viability of the system;

(iii) decreases the administrative burden on the user community; and

(iv) provides the waste receipt data applicable to the biennial reports required by section 3002(a)(6).

(4) PAYMENT STRUCTURE.—Each contract awarded under this subsection shall include a provision that specifies—

(A) the service fee structure of the contractor that will form the basis for payments to the contractor; and

(B) the fixed-share ratio of monthly service fee revenues from which the Administrator shall reimburse the contractor for system-related development, operation, and maintenance costs.

(5) CANCELLATION AND TERMINATION.—

(A) IN GENERAL.—If the Administrator determines that sufficient funds are not made available for the continuation in a subsequent fiscal year of a contract entered into under this subsection, the Administrator may cancel or terminate the contract.

(B) NEGOTIATION OF AMOUNTS.—The amount payable in the event of cancellation or termination of a contract entered into under this subsection shall be negotiated with the contractor at the time at which the contract is awarded.

(6) NO EFFECT ON OWNERSHIP.—Regardless of whether the Administrator enters into a contract under this subsection, the system shall be owned by the Federal Government.

(f) HAZARDOUS WASTE ELECTRONIC MANIFEST SYSTEM ADVISORY BOARD.—

(1) ESTABLISHMENT.—Not later than 3 years after the date of enactment of this section, the Administrator shall establish a board to be known as the “Hazardous Waste Electronic Manifest System Advisory Board”.

(2) COMPOSITION.—The Board shall be composed of 9 members, of which—

(A) 1 member shall be the Administrator (or a designee), who shall serve as Chairperson of the Board; and

(B) 8 members shall be individuals appointed by the Administrator—

(i) at least 2 of whom shall have expertise in information technology;

(ii) at least 3 of whom shall have experience in using or represent users of the manifest system to track the transportation of hazardous waste under this subtitle (or an equivalent State program); and

(iii) at least 3 of whom shall be a State representative responsible for processing those manifests.

(3) DUTIES.—The Board shall meet annually to discuss, evaluate the effectiveness of, and provide recommendations to the Administrator relating to, the system.

(g) REGULATIONS.—

(1) PROMULGATION.—

(A) IN GENERAL.—Not later than 1 year after the date of enactment of this section, after consultation with the Secretary of Transportation, the Administrator shall promulgate regulations to carry out this section.

(B) INCLUSIONS.—The regulations promulgated pursuant to subparagraph (A) may include such requirements as the Administrator determines to be necessary to facilitate the transition from the use of paper manifests to the use of electronic manifests, or to accommodate the processing of data from paper manifests in the electronic manifest system, including a requirement that users of paper manifests submit to the system copies of the paper manifests for data processing purposes.

(C) REQUIREMENTS.—The regulations promulgated pursuant to subparagraph (A) shall ensure that each electronic manifest provides, to the same extent as paper manifests under applicable Federal and State law, for—

(i) the ability to track and maintain legal accountability of—

(I) the person that certifies that the information provided in the manifest is accurately described; and

(II) the person that acknowledges receipt of the manifest;

(ii) if the manifest is electronically submitted, State authority to access paper printout copies of the manifest from the system; and

(iii) access to all publicly available information contained in the manifest.

(2) EFFECTIVE DATE OF REGULATIONS.—Any regulation promulgated by the Administrator under paragraph (1) and in accordance with section 3003 relating to electronic manifesting of hazardous waste shall take effect in each State as of the effective date specified in the regulation.

(3) ADMINISTRATION.—The Administrator shall carry out regulations promulgated under this subsection in each State unless the State program is fully authorized to carry out such regulations in lieu of the Administrator.

(h) REQUIREMENT OF COMPLIANCE WITH RESPECT TO CERTAIN STATES.—In any case in which the State in which waste is generated, or the State in which waste will be transported to a des-



ignated facility, requires that the waste be tracked through a hazardous waste manifest, the designated facility that receives the waste shall, regardless of the State in which the facility is located—

- (1) complete the facility portion of the applicable manifest;
- (2) sign and date the facility certification; and
- (3) submit to the system a final copy of the manifest for data processing purposes.

(i) AUTHORIZATION FOR START-UP ACTIVITIES.—There are authorized to be appropriated \$2,000,000 for each of fiscal years 2013 through 2015 for start-up activities to carry out this section, to be offset by collection of user fees under subsection (c) such that all such appropriated funds are offset by fees as provided in subsection (c).

【42 U.S.C. 6939g】

#### Subtitle D—State or Regional Solid Waste Plans

##### OBJECTIVES OF SUBTITLE

SEC. 4001. The objectives of this subtitle are to assist in developing and encouraging methods for the disposal of solid waste which are environmentally sound and which maximize the utilization of valuable resources including energy and materials which are recoverable from solid waste and to encourage resource conservation. Such objectives are to be accomplished through Federal technical and financial assistance to States or regional authorities for comprehensive planning pursuant to Federal guidelines designed to foster cooperation among Federal, State, and local governments and private industry. In developing such comprehensive plans, it is the intention of this Act that in determining the size of the waste-to-energy facility, adequate provision shall be given to the present and reasonably anticipated future needs, including those needs created by thorough implementation of section 6002(h), of the recycling and resource recovery interest within the area encompassed by the planning process.

【42 U.S.C. 6941】

##### FEDERAL GUIDELINES FOR PLANS

SEC. 4002. (a) GUIDELINES FOR IDENTIFICATION OF REGIONS.—For purposes of encouraging and facilitating the development of regional planning for solid waste management, the Administrator, within one hundred and eighty days after the date of enactment of this section and after consultation with appropriate Federal, State, and local authorities, shall by regulation publish guidelines for the identification of those areas which have common solid waste management problems and are appropriate units for planning regional solid waste management services. Such guidelines shall consider—

- (1) the size and location of areas which should be included,
  - (2) the volume of solid waste which should be included,
- and
- (3) the available means of coordinating regional planning with other related regional planning and for coordination of such regional planning into the State plan.

(b) GUIDELINES FOR STATE PLANS.—Not later than eighteen months after the date of enactment of this section and after notice and hearing, the Administrator shall, after consultation with appropriate Federal, State, and local authorities, promulgate regulations containing guidelines to assist in the development and implementation of State solid waste management plans (hereinafter in this title referred to as “State plans”). The guidelines shall contain methods for achieving the objectives specified in section 4001. Such guidelines shall be reviewed from time to time, but not less frequently than every three years, and revised as may be appropriate.

(c) CONSIDERATIONS FOR STATE PLAN GUIDELINES.—The guidelines promulgated under subsection (b) shall consider—

(1) the varying regional, geologic, hydrologic, climatic, and other circumstances under which different solid waste practices are required in order to insure the reasonable protection of the quality of the ground and surface waters from leachate contamination, the reasonable protection of the quality of the surface waters from surface runoff contamination, and the reasonable protection of ambient air quality;

(2) characteristics and conditions of collection, storage, processing, and disposal operating methods, techniques and practices, and location of facilities where such operating methods, techniques, and practices are conducted, taking into account the nature of the material to be disposed;

(3) methods for closing or upgrading open dumps for purposes of eliminating potential health hazards;

(4) population density, distribution, and projected growth;

(5) geographic, geologic, climatic, and hydrologic characteristics;

(6) the type and location of transportation;

(7) the profile of industries;

(8) the constituents and generation rates of waste;

(9) the political, economic, organizational, financial, and management problems affecting comprehensive solid waste management;

(10) types of resource recovery facilities and resource conservation systems which are appropriate; and

(11) available new and additional markets for recovered material and energy and energy resources recovered from solid waste as well as methods for conserving such materials and energy.

[42 U.S.C. 6942]

#### MINIMUM REQUIREMENTS FOR APPROVAL OF PLANS

SEC. 4003. (a) MINIMUM REQUIREMENTS.—In order to be approved under section 4007, each State plan must comply with the following minimum requirements—

(1) The plan shall identify (in accordance with section 4006(b)) (A) the responsibilities of State, local, and regional authorities in the implementation of the State plan, (B) the distribution of Federal funds to the authorities responsible for development and implementation of the State plan, and (C) the

means for coordinating regional planning and implementation under the State plan.

(2) The plan shall, in accordance with sections 4004(b) and 4005(a), prohibit the establishment of new open dumps within the State, and contain requirements that all solid waste (including solid waste originating in other States, but not including hazardous waste) shall be (A) utilized for resource recovery or (B) disposed of in sanitary landfills (within the meaning of section 4004(a)) or otherwise disposed of in an environmentally sound manner.

(3) The plan shall provide for the closing or upgrading of all existing open dumps within the State pursuant to the requirements of section 4005.

(4) The plan shall provide for the establishment of such State regulatory powers as may be necessary to implement the plan.

(5) The plan shall provide that no State or local government within the State shall be prohibited under State or local law from negotiating and entering into long-term contracts for the supply of solid waste to resource recovery facilities, from entering into long-term contracts for the operation of such facilities, or from securing long-term markets for material and energy recovered from such facilities or for conserving materials or energy by reducing the volume of waste.

(6) The plan shall provide for such resource conservation or recovery and for the disposal of solid waste in sanitary landfills or any combination of practices so as may be necessary to use or dispose of such waste in a manner that is environmentally sound.

(b) DISCRETIONARY PLAN PROVISIONS RELATING TO RECYCLED OIL.—Any State plan submitted under this subtitle may include, at the option of the State, provisions to carry out each of the following:

(1) Encouragement, to the maximum extent feasible and consistent with the protection of the public health and the environment, of the use of recycled oil in all appropriate areas of State and local government.

(2) Encouragement of persons contracting with the State to use recycled oil to the maximum extent feasible, consistent with protection of the public health and the environment.

(3) Informing the public of the uses of recycled oil.

(4) Establishment and implementation of a program (including any necessary licensing of persons and including the use, where appropriate, of manifests) to assure that used oil is collected, transported, treated, stored, reused, and disposed of, in a manner which does not present a hazard to the public health or the environment.

Any plan submitted under this title before the date of the enactment of the Used Oil Recycling Act of 1980 may be amended, at the option of the State, at any time after such date to include any provision referred to in this subsection.

(c) ENERGY AND MATERIALS CONSERVATION AND RECOVERY FEASIBILITY PLANNING AND ASSISTANCE.—(1) A State which has a plan approved under this subtitle or which has submitted a plan

for such approval shall be eligible for assistance under section 4008(a)(3) if the Administrator determines that under such plan the State will—

(A) analyze and determine the economic and technical feasibility of facilities and programs to conserve resources which contribute to the waste stream or to recover energy and materials from municipal waste;

(B) analyze the legal, institutional, and economic impediments to the development of systems and facilities for conservation of energy or materials which contribute to the waste stream or for the recovery of energy and materials from municipal waste and make recommendations to appropriate governmental authorities for overcoming such impediments;

(C) assist municipalities within the State in developing plans, programs, and projects to conserve resources or recover energy and materials from municipal waste; and

(D) coordinate the resource conservation and recovery planning under subparagraph (C).

(2) The analysis referred to in paragraph (1)(A) shall include—

(A) the evaluation of, and establishment of priorities among, market opportunities for industrial and commercial users of all types (including public utilities and industrial parks) to utilize energy and materials recovered from municipal waste;

(B) comparisons of the relative costs of energy recovered from municipal waste in relation to the costs of energy derived from fossil fuels and other sources;

(C) studies of the transportation and storage problems and other problems associated with the development of energy and materials recovery technology, including curbside source separation;

(D) the evaluation and establishment of priorities among ways of conserving energy or materials which contribute to the waste stream;

(E) comparison of the relative total costs between conserving resources and disposing of or recovering such waste; and

(F) studies of impediments to resource conservation or recovery, including business practices, transportation requirements, or storage difficulties.

Such studies and analyses shall also include studies of other sources of solid waste from which energy and materials may be recovered or minimized.

(d) **SIZE OF WASTE-TO-ENERGY FACILITIES.**—Notwithstanding any of the above requirements, it is the intention of this Act and the planning process developed pursuant to this Act that in determining the size of the waste-to-energy facility, adequate provision shall be given to the present and reasonably anticipated future needs of the recycling and resource recovery interest within the area encompassed by the planning process.

【42 U.S.C. 6943】

CRITERIA FOR SANITARY LANDFILLS; SANITARY LANDFILLS REQUIRED  
FOR ALL DISPOSAL

SEC. 4004. (a) CRITERIA FOR SANITARY LANDFILLS.—Not later than one year after the date of enactment of this section, after consultation with the States, and after notice and public hearings, the Administrator shall promulgate regulations containing criteria for determining which facilities shall be classified as sanitary landfills and which shall be classified as open dumps within the meaning of this Act. At a minimum, such criteria shall provide that a facility may be classified as a sanitary landfill and not an open dump only if there is no reasonable probability of adverse effects on health or the environment from disposal of solid waste at such facility. Such regulations may provide for the classification of the types of sanitary landfills.

(b) DISPOSAL REQUIRED TO BE IN SANITARY LANDFILLS, ETC.—For purposes of complying with section 4003(2)<sup>24</sup> each State plan shall prohibit the establishment of open dumps and contain a requirement that disposal of all solid waste within the State shall be in compliance with such section 4003(2).<sup>24</sup>

(c) EFFECTIVE DATE.—The prohibition contained in subsection (b) shall take effect on the date six months after the date of promulgation of regulations under subsection (a).

【42 U.S.C. 6944】

## UPGRADING OF OPEN DUMPS

SEC. 4005. (a) CLOSING OR UPGRADING OF EXISTING OPEN DUMPS.—Upon promulgation of criteria under section 1008(a)(3), any solid waste management practice or disposal of solid waste or hazardous waste which constitutes the open dumping of solid waste or hazardous waste is prohibited, except in the case of any practice or disposal of solid waste under a timetable or schedule for compliance established under this section. The prohibition contained in the preceding sentence shall be enforceable under section 7002 against persons engaged in the act of open dumping. For purposes of complying with section 4003(2) and 4003(3), each State plan shall contain a requirement that all existing disposal facilities or sites for solid waste in such State which are open dumps listed in the inventory under subsection (b) shall comply with such measures as may be promulgated by the Administrator to eliminate health hazards and minimize potential health hazards. Each such plan shall establish, for any entity which demonstrates that it has considered other public or private alternatives for solid waste management to comply with the prohibition on open dumping and is unable to utilize such alternatives to so comply, a timetable or schedule for compliance for such practice or disposal of solid waste which specifies a schedule of remedial measures, including an enforceable sequence of actions or operations, leading to compliance with the prohibition of open dumping of solid waste within a reasonable time (not to exceed 5 years from the date of publication of criteria under section 1008(a)(3)).

<sup>24</sup>The references in section 4004(b) to section 4003(2) should be a reference to section 4003(a)(2), pursuant to the renumbering made by section 5(b) of Public Law 96-463.



(b) INVENTORY.—To assist the States in complying with section 4003(3), not later than one year after promulgation of regulations under section 4004, the Administrator, with the cooperation of the Bureau of the Census shall publish an inventory of all disposal facilities or sites in the United States which are open dumps within the meaning of this Act.

(c) CONTROL OF HAZARDOUS DISPOSAL.—(1)(A) Not later than 36 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, each State shall adopt and implement a permit program or other system of prior approval and conditions to assure that each solid waste management facility within such State which may receive hazardous household waste or hazardous waste due to the provision of section 3001(d) for small quantity generators (otherwise not subject to the requirement for a permit under section 3005) will comply with the applicable criteria promulgated under section 4004(a) and section 1008(a)(3).

(B) Not later than eighteen months after the promulgation of revised criteria under subsection<sup>25</sup> 4004(a) (as required by section 4010(c)), each State shall adopt and implement a permit program or other system or<sup>26</sup> prior approval and conditions, to assure that each solid waste management facility within such State which may receive hazardous household waste or hazardous waste due to the provision of section 3001(d) for small quantity generators (otherwise not subject to the requirement for a permit under section 3005) will comply with the criteria revised under section 4004(a).

(C) The Administrator shall determine whether each State has developed an adequate program under this paragraph. The Administrator may make such a determination in conjunction with approval, disapproval or partial approval of a State plan under section 4007.

(2)(A) In any State that the Administrator determines has not adopted an adequate program for such facilities under paragraph (1)(B) by the date provided in such paragraph, the Administrator may use the authorities available under sections 3007 and 3008 of this title to enforce the prohibition contained in subsection (a) of this section with respect to such facilities.

(B) For purposes of this paragraph, the term “requirement of this subtitle” in section 3008 shall be deemed to include criteria promulgated by the Administrator under sections 1008(a)(3) and 4004(a) of this title, and the term “hazardous wastes” in section 3007 shall be deemed to include solid waste at facilities that may handle hazardous household wastes or hazardous wastes from small quantity generators.

(d) STATE PROGRAMS FOR CONTROL OF COAL COMBUSTION RESIDUALS.—

(1) APPROVAL BY ADMINISTRATOR.—

(A) IN GENERAL.—Each State may submit to the Administrator, in such form as the Administrator may establish, evidence of a permit program or other system of prior approval and conditions under State law for regulation by the State of coal combustion residuals units that are lo-

<sup>25</sup> So in law. Probably should be “section”.

<sup>26</sup> So in law. Probably should be “of”.

cated in the State that, after approval by the Administrator, will operate in lieu of regulation of coal combustion residuals units in the State by—

(i) application of part 257 of title 40, Code of Federal Regulations (or successor regulations promulgated pursuant to sections 1008(a)(3) and 4004(a)); or

(ii) implementation by the Administrator of a permit program under paragraph (2)(B).

(B) REQUIREMENT.—Not later than 180 days after the date on which a State submits the evidence described in subparagraph (A), the Administrator, after public notice and an opportunity for public comment, shall approve, in whole or in part, a permit program or other system of prior approval and conditions submitted under subparagraph (A) if the Administrator determines that the program or other system requires each coal combustion residuals unit located in the State to achieve compliance with—

(i) the applicable criteria for coal combustion residuals units under part 257 of title 40, Code of Federal Regulations (or successor regulations promulgated pursuant to sections 1008(a)(3) and 4004(a)); or

(ii) such other State criteria that the Administrator, after consultation with the State, determines to be at least as protective as the criteria described in clause (i).

(C) PERMIT REQUIREMENTS.—The Administrator shall approve under subparagraph (B)(ii) a State permit program or other system of prior approval and conditions that allows a State to include technical standards for individual permits or conditions of approval that differ from the criteria under part 257 of title 40, Code of Federal Regulations (or successor regulations promulgated pursuant to sections 1008(a)(3) and 4004(a)) if, based on site-specific conditions, the Administrator determines that the technical standards established pursuant to a State permit program or other system are at least as protective as the criteria under that part.

(D) PROGRAM REVIEW AND NOTIFICATION.—

(i) PROGRAM REVIEW.—The Administrator shall review a State permit program or other system of prior approval and conditions that is approved under subparagraph (B)—

(I) from time to time, as the Administrator determines necessary, but not less frequently than once every 12 years;

(II) not later than 3 years after the date on which the Administrator revises the applicable criteria for coal combustion residuals units under part 257 of title 40, Code of Federal Regulations (or successor regulations promulgated pursuant to sections 1008(a)(3) and 4004(a));

(III) not later than 1 year after the date of a significant release (as defined by the Administrator), that was not authorized at the time the

release occurred, from a coal combustion residuals unit located in the State; and

(IV) on request of any other State that asserts that the soil, groundwater, or surface water of the State is or is likely to be adversely affected by a release or potential release from a coal combustion residuals unit located in the State for which the program or other system was approved.

(ii) NOTIFICATION AND OPPORTUNITY FOR A PUBLIC HEARING.—The Administrator shall provide to a State notice of deficiencies with respect to the permit program or other system of prior approval and conditions of the State that is approved under subparagraph (B), and an opportunity for a public hearing, if the Administrator determines that—

(I) a revision or correction to the permit program or other system of prior approval and conditions of the State is necessary to ensure that the permit program or other system of prior approval and conditions continues to ensure that each coal combustion residuals unit located in the State achieves compliance with the criteria described in clauses (i) and (ii) of subparagraph (B);

(II) the State has not implemented an adequate permit program or other system of prior approval and conditions that requires each coal combustion residuals unit located in the State to achieve compliance with the criteria described in subparagraph (B); or

(III) the State has, at any time, approved or failed to revoke a permit for a coal combustion residuals unit, a release from which adversely affects or is likely to adversely affect the soil, groundwater, or surface water of another State.

(E) WITHDRAWAL.—

(i) IN GENERAL.—The Administrator shall withdraw approval of a State permit program or other system of prior approval and conditions if, after the Administrator provides notice and an opportunity for a public hearing to the relevant State under subparagraph (D)(ii), the Administrator determines that the State has not corrected the deficiencies identified by the Administrator under subparagraph (D)(ii).

(ii) REINSTATEMENT OF STATE APPROVAL.—Any withdrawal of approval under clause (i) shall cease to be effective on the date on which the Administrator makes a determination that the State has corrected the deficiencies identified by the Administrator under subparagraph (D)(ii).

(2) NONPARTICIPATING STATES.—

(A) DEFINITION OF NONPARTICIPATING STATE.—In this paragraph, the term “nonparticipating State” means a State—

(i) for which the Administrator has not approved a State permit program or other system of prior approval and conditions under paragraph (1)(B);

(ii) the Governor of which has not submitted to the Administrator for approval evidence to operate a State permit program or other system of prior approval and conditions under paragraph (1)(A);

(iii) the Governor of which provides notice to the Administrator that, not fewer than 90 days after the date on which the Governor provides the notice to the Administrator, the State will relinquish an approval under paragraph (1)(B) to operate a permit program or other system of prior approval and conditions; or

(iv) for which the Administrator has withdrawn approval for a permit program or other system of prior approval and conditions under paragraph (1)(E).

(B) IMPLEMENTATION OF PERMIT PROGRAM.—In the case of a nonparticipating State and subject to the availability of appropriations specifically provided in an appropriations Act to carry out a program in a nonparticipating State, the Administrator shall implement a permit program to require each coal combustion residuals unit located in the nonparticipating State to achieve compliance with applicable criteria established by the Administrator under part 257 of title 40, Code of Federal Regulations (or successor regulations promulgated pursuant to sections 1008(a)(3) and 4004(a)).

(3) APPLICABILITY OF CRITERIA.—The applicable criteria for coal combustion residuals units under part 257 of title 40, Code of Federal Regulations (or successor regulations promulgated pursuant to sections 1008(a)(3) and 4004(a)), shall apply to each coal combustion residuals unit in a State unless—

(A) a permit under a State permit program or other system of prior approval and conditions approved by the Administrator under paragraph (1)(B) is in effect for the coal combustion residuals unit; or

(B) a permit issued by the Administrator in a State in which the Administrator is implementing a permit program under paragraph (2)(B) is in effect for the coal combustion residuals unit.

(4) PROHIBITION ON OPEN DUMPING.—

(A) IN GENERAL.—The Administrator may use the authority provided by sections 3007 and 3008 to enforce the prohibition on open dumping under subsection (a) with respect to a coal combustion residuals unit—

(i) in a nonparticipating State (as defined in paragraph (2)); and

(ii) located in a State that is approved to operate a permit program or other system of prior approval and conditions under paragraph (1)(B), in accordance with subparagraph (B) of this paragraph.

(B) FEDERAL ENFORCEMENT IN AN APPROVED STATE.—

(i) IN GENERAL.—In the case of a coal combustion residuals unit located in a State that is approved to

operate a permit program or other system of prior approval and conditions under paragraph (1)(B), the Administrator may commence an administrative or judicial enforcement action under section 3008 if—

(I) the State requests that the Administrator provide assistance in the performance of an enforcement action; or

(II) after consideration of any other administrative or judicial enforcement action involving the coal combustion residuals unit, the Administrator determines that an enforcement action is likely to be necessary to ensure that the coal combustion residuals unit is operating in accordance with the criteria established under the permit program or other system of prior approval and conditions.

(ii) NOTIFICATION.—In the case of an enforcement action by the Administrator under clause (i)(II), before issuing an order or commencing a civil action, the Administrator shall notify the State in which the coal combustion residuals unit is located.

(iii) ANNUAL REPORT TO CONGRESS.—

(I) IN GENERAL.—Subject to subclause (II), not later than December 31, 2017, and December 31 of each year thereafter, the Administrator shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report that describes any enforcement action commenced under clause (i), including a description of the basis for the enforcement action.

(II) APPLICABILITY.—Subclause (I) shall not apply for any calendar year during which the Administrator does not commence an enforcement action under clause (i).

(5) INDIAN COUNTRY.—The Administrator shall establish and carry out a permit program, in accordance with this subsection, for coal combustion residuals units in Indian country (as defined in section 1151 of title 18, United States Code) to require each coal combustion residuals unit located in Indian country to achieve compliance with the applicable criteria established by the Administrator under part 257 of title 40, Code of Federal Regulations (or successor regulations promulgated pursuant to sections 1008(a)(3) and 4004(a)).

(6) TREATMENT OF COAL COMBUSTION RESIDUALS UNITS.—A coal combustion residuals unit shall be considered to be a sanitary landfill for purposes of this Act, including subsection (a), only if the coal combustion residuals unit is operating in accordance with—

(A) the requirements of a permit issued by—

(i) the State in accordance with a program or system approved under paragraph (1)(B); or

(ii) the Administrator pursuant to paragraph (2)(B) or paragraph (5); or



(B) the applicable criteria for coal combustion residuals units under part 257 of title 40, Code of Federal Regulations (or successor regulations promulgated pursuant to sections 1008(a)(3) and 4004(a)).

(7) EFFECT OF SUBSECTION.—Nothing in this subsection affects any authority, regulatory determination, other law, or legal obligation in effect on the day before the date of enactment of the Water and Waste Act of 2016.

[42 U.S.C. 6945]

PROCEDURE FOR DEVELOPMENT AND IMPLEMENTATION OF STATE  
PLAN

SEC. 4006. (a) IDENTIFICATION OF REGIONS.—Within one hundred and eighty days after publication of guidelines under section 4002(a) (relating to identification of regions), the Governor of each State, after consultation with local elected officials, shall promulgate regulations based on such guidelines identifying the boundaries of each area within the State which, as a result of urban concentrations, geographic conditions, markets, and other factors, is appropriate for carrying out regional solid waste management. Such regulations may be modified from time to time (identifying additional or different regions) pursuant to such guidelines.

(b) IDENTIFICATION OF STATE AND LOCAL AGENCIES AND RESPONSIBILITIES.—(1) Within one hundred and eighty days after the Governor promulgates regulations under subsection (a), for purposes of facilitating the development and implementation of a State plan which will meet the minimum requirements of section 4003, the State, together with appropriate elected officials of general purpose units of local government, shall jointly (A) identify an agency to develop the State plan and identify one or more agencies to implement such plan, and (B) identify which solid waste management activities will, under such State plan, be planned for and carried out by the State and which such management activities will, under such State plan, be planned for and carried out by a regional or local authority or a combination of regional or local and State authorities. If a multi-functional regional agency authorized by State law to conduct solid waste planning and management (the members of which are appointed by the Governor) is in existence on the date of enactment of this Act, the Governor shall identify such authority for purposes of carrying out within such region clause (A) of this paragraph. Where feasible, designation of the agency for the affected area designated under section 208 of the Federal Water Pollution Control Act (86 Stat. 839) shall be considered. A State agency identified under this paragraph shall be established or designated by the Governor of such State. Local or regional agencies identified under this paragraph shall be composed of individuals at least a majority of whom are elected local officials.

(2) If planning and implementation agencies are not identified and designated or established as required under paragraph (1) for any affected area, the governor shall, before the date two hundred and seventy days after promulgation of regulations under subsection (a), establish or designate a State agency to develop and implement the State plan for such area.

(c) INTERSTATE REGIONS.—(1) In the case of any region which, pursuant to the guidelines published by the Administrator under section 4002(a) (relating to identification of regions), would be located in two or more States, the Governors of the respective States, after consultation with local elected officials, shall consult, cooperate, and enter into agreements identifying the boundaries of such region pursuant to subsection (a).

(2) Within one hundred and eighty days after an interstate region is identified by agreement under paragraph (1), appropriate elected officials of general purpose units of local government within such region shall jointly establish or designate an agency to develop a plan for such region. If no such agency is established or designated within such period by such officials, the Governors of the respective States may, by agreement, establish or designate for such purpose a single representative organization including elected officials of general purpose units of local government within such region.

(3) Implementation of interstate regional solid waste management plans shall be conducted by units of local government for any portion of a region within their jurisdiction, or by multijurisdictional agencies or authorities designated in accordance with State law, including those designated by agreement by such units of local government for such purpose. If no such unit, agency, or authority is so designated, the respective Governors shall designate or establish a single interstate agency to implement such plan.

(4) For purposes of this subtitle, so much of an interstate regional plan as is carried out within a particular State shall be deemed part of the State plan for such State.

[42 U.S.C. 6946]

#### APPROVAL OF STATE PLAN; FEDERAL ASSISTANCE

SEC. 4007. (a) PLAN APPROVAL.—The Administrator shall, within six months after a State plan has been submitted for approval, approve or disapprove the plan. The Administrator shall approve a plan if he determines that—

(1) it meets the requirements of paragraphs (1), (2), (3), and (5) of section 4003(a); and

(2) it contains provision for revision of such plan, after notice and public hearing, whenever the Administrator, by regulation, determines—

(A) that revised regulations respecting minimum requirements have been promulgated under paragraphs (1), (2), (3), and (5) of section 4003(a) with which the State plan is not in compliance;

(B) that information has become available which demonstrates the inadequacy of the plan to effectuate the purposes of this subtitle; or

(C) that such revision is otherwise necessary.

The Administrator shall review approved plans from time to time and if he determines that revision or corrections are necessary to bring such plan into compliance with the minimum requirements promulgated under section 4003 (including new or revised requirements), he shall, after notice and opportunity for public hearing,

withdraw his approval of such plan. Such withdrawal of approval shall cease to be effective upon the Administrator's determination that such complies with such minimum requirements.

(b) ELIGIBILITY OF STATES FOR FEDERAL FINANCIAL ASSISTANCE.—(1) The Administrator shall approve a State application for financial assistance under this subtitle, and make grants to such State, if such State and local and regional authorities within such State have complied with the requirements of section 4006 within the period required under such section and if such State has a State plan which has been approved by the Administrator under this subtitle.

(2) The Administrator shall approve a State application for financial assistance under this subtitle, and make grants to such State, for fiscal years 1978 and 1979 if the Administrator determines that the State plan continues to be eligible for approval under subsection (a) and is being implemented by the State.

(3) Upon withdrawal of approval of a State plan under subsection (a), the Administrator shall withhold Federal financial and technical assistance under this subtitle (other than such technical assistance as may be necessary to assist in obtaining the reinstatement of approval) until such time as such approval is reinstated.

(c) EXISTING ACTIVITIES.—Nothing in this subtitle shall be construed to prevent or affect any activities respecting solid waste planning or management which are carried out by State, regional, or local authorities unless such activities are inconsistent with a State plan approved by the Administrator under this subtitle.

[42 U.S.C. 6947]

#### FEDERAL ASSISTANCE

SEC. 4008. (a) AUTHORIZATION OF FEDERAL FINANCIAL ASSISTANCE.—(1) There are authorized to be appropriated \$30,000,000 for fiscal year 1978, \$40,000,000 for fiscal year 1979, \$20,000,000 for fiscal year 1980, \$15,000,000 for fiscal year 1981, \$20,000,000 for the fiscal year 1982, and \$10,000,000 for each of the fiscal years 1985 through 1988 for purposes of financial assistance to States and local, regional, and interstate authorities for the development and implementation of plans approved by the Administrator under this subtitle (other than the provisions of such plans referred to in section 4003(b),<sup>27</sup> relating to feasibility planning for municipal waste energy and materials conservation and recovery).

(2)(A) The Administrator is authorized to provide financial assistance to States, counties, municipalities, and intermunicipal agencies and State and local public solid waste management authorities for implementation of programs to provide solid waste management, resource recovery, and resource conservation services and hazardous waste management. Such assistance shall include assistance for facility planning and feasibility studies; expert consultation; surveys and analyses of market needs; marketing of recovered resources; technology assessments; legal expenses; construction feasibility studies; source separation projects; and fiscal

<sup>27</sup> References in section 4008 to section 4003(b) (in subsections (a)(1), (a)(3), and (g)(1)) should be references to section 4003(c), pursuant to the redesignation made by section 502(h) of Public Law 98-616.

or economic investigations or studies; but such assistance shall not include any other element of construction, or any acquisition of land or interest in land, or any subsidy for the price of recovered resources. Agencies assisted under this subsection shall consider existing solid waste management and hazardous waste management services and facilities as well as facilities proposed for construction.

(B) An applicant for financial assistance under this paragraph must agree to comply with respect to the project or program assisted with the applicable requirements of section 4005 and Subtitle C of this Act and apply applicable solid waste management practices, methods, and levels of control consistent with any guidelines published pursuant to section 1008 of this Act. Assistance under this paragraph shall be available only for programs certified by the State to be consistent with any applicable State or areawide solid waste management plan or program. Applicants for technical and financial assistance under this section shall not preclude or foreclose consideration of programs for the recovery of recyclable materials through source separation or other resource recovery techniques.

(C) There are authorized to be appropriated \$15,000,000 for each of the fiscal years 1978 and 1979 for purposes of this section. There are authorized to be appropriated \$10,000,000 for fiscal year 1980, \$10,000,000 for fiscal year 1981, \$10,000,000 for fiscal year 1982, and \$10,000,000 for each of the fiscal years 1985 through 1988 for purposes of this paragraph.

(D) There are authorized—

(i) to be made available \$15,000,000 out of funds appropriated for fiscal year 1985, and

(ii) to be appropriated for each of the fiscal years 1986 through<sup>28</sup> 1988, \$20,000,000<sup>29</sup>

for grants to States (and where appropriate to regional, local, and interstate agencies) to implement programs requiring compliance by solid waste management facilities with the criteria promulgated under section 4004(a) and section 1008(a)(3) and with the provisions of section 4005. To the extent practicable, such programs shall require such compliance not later than thirty-six months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984.

(3)(A) There is authorized to be appropriated for the fiscal year beginning October 1, 1981, and for each fiscal year thereafter before October 1, 1986, \$4,000,000 for purposes of making grants to States to carry out section 4003(b). No amount may be appropriated for such purposes for the fiscal year beginning on October 1, 1986, or for any fiscal year thereafter.

(B) Assistance provided by the Administrator under this paragraph shall be used only for the purposes specified in section 4003(b). Such assistance may not be used for purposes of land acquisition, final facility design, equipment purchase, construction, startup or operation activities.

<sup>28</sup> So in law. Probably should be “through”.

<sup>29</sup> So in law. Probably should be followed by a comma.

(C) Where appropriate, any State receiving assistance under this paragraph may make all or any part of such assistance available to municipalities within the State to carry out the activities specified in section 4003(b)(1)(A) and (B).

(b) STATE ALLOTMENT.—The sums appropriated in any fiscal year under subsection (a)(1) shall be allotted by the Administrator among all States, in the ratio that the population in each State bears to the population in all of the States, except that no State shall receive less than one-half of 1 per centum of the sums so allotted in any fiscal year. No State shall receive any grant under this section during any fiscal year when its expenditures of non-Federal funds for other than non-recurrent expenditures for solid waste management control programs will be less than its expenditures were for such programs during fiscal year 1975, except that such funds may be reduced by an amount equal to their proportionate share of any general reduction of State spending ordered by the Governor or legislature of such State. No State shall receive any grant for solid waste management programs unless the Administrator is satisfied that such grant will be so used as to supplement and, to the extent practicable, increase the level of State, local, regional, or other non-Federal funds that would in the absence of such grant be made available for the maintenance of such programs.

(c) DISTRIBUTION OF FEDERAL FINANCIAL ASSISTANCE WITHIN THE STATE.—The Federal assistance allotted to the States under subsection (b) shall be allocated by the State receiving such funds to State, local, regional, and interstate authorities carrying out planning and implementation of the State plan. Such allocation shall be based upon the responsibilities of the respective parties as determined pursuant to section 4006(b).

(d) TECHNICAL ASSISTANCE.—(1) The Administrator may provide technical assistance to State and local governments for purposes of developing and implementing State plans. Technical assistance respecting resource recovery and conservation may be provided through resource recovery and conservation panels, established in the Environmental Protection Agency under subtitle B, to assist the State and local governments with respect to particular resource recovery and conservation projects under consideration and to evaluate their effect on the State plan.

(2) In carrying out this subsection, the Administrator may, upon request, provide technical assistance to States to assist in the removal or modification of legal, institutional, economic, and other impediments to the recycling of used oil. Such impediments may include laws, regulations, and policies, including State procurement policies, which are not favorable to the recycling of used oil.

(3) In carrying out this subsection, the Administrator is authorized to provide technical assistance to States, municipalities, regional authorities, and intermunicipal agencies upon request, to assist in the removal or modification of legal, institutional, and economic impediments which have the effect of impeding the development of systems and facilities to recover energy and materials from municipal waste or to conserve energy or materials which contribute to the waste stream. Such impediments may include—



(A) laws, regulations, and policies, including State and local procurement policies, which are not favorable to resource conservation and recovery policies, systems, and facilities;

(B) impediments to the financing of facilities to conserve or recover energy and materials from municipal waste through the exercise of State and local authority to issue revenue bonds and the use of State and local credit assistance; and

(C) impediments to institutional arrangements necessary to undertake projects for the conservation or recovery of energy and materials from municipal waste, including the creation of special districts, authorities, or corporations where necessary having the power to secure the supply of waste of a project, to conserve resources, to implement the project, and to undertake related activities.

(e) SPECIAL COMMUNITIES.—(1) The Administrator, in cooperation with State and local officials, shall identify local governments within the United States (A) having a solid waste disposal facility (i) which is owned by the unit of local government, (ii) for which an order has been issued by the State to cease receiving solid waste for treatment, storage, or disposal, and (iii) which is subject to a State-approved end-use recreation plan, and (B) which are located over an aquifer which is the source of drinking water for any person or public water system and which has serious environmental problems resulting from the disposal of such solid waste, including possible methane migration.

(2) There is authorized to be appropriated to the Administrator \$2,500,000 for the fiscal year 1980 and \$1,500,000 for each of the fiscal years 1981 and 1982<sup>30</sup> to make grants to be used for containment and stabilization of solid waste located at the disposal sites referred to in paragraph (1). Not more than one community in any State shall be eligible for grants under this paragraph and not more than one project in any State shall be eligible for such grants. No unit of local government shall be eligible for grants under this paragraph with respect to any site which exceeds 65 acres in size.

(f) ASSISTANCE TO STATES FOR DISCRETIONARY PROGRAM FOR RECYCLED OIL.—(1) The Administrator may make grants to States, which have a State plan approved under section 4007, or which have submitted a State plan for approval under such section, if such plan includes the discretionary provisions described in section 4003(b). Grants under this subsection shall be for purposes of assisting the State in carrying out such discretionary provisions. No grant under this subsection may be used for construction or for the acquisition of land or equipment.

(2) Grants under this subsection shall be allotted among the States in the same manner as provided in the first sentence of subsection (b).

(3) No grant may be made under this subsection unless an application therefor is submitted to, and approved by, the Administrator. The application shall be in such form, be submitted in such manner, and contain such information as the Administrator may require.

<sup>30</sup> An amendment contained in section 2(f) of the conference report on H.R. 2867 changed this phrase to add "\$500,000 for each of the fiscal years 1985 through 1988." This amendment was erroneously not included in Public Law 98-616.

(4) For purposes of making grants under this subsection, there are authorized to be appropriated \$5,000,000 for fiscal year 1982, \$5,000,000 for fiscal year 1983, and \$5,000,000 for each of the fiscal years 1985 through 1988.

(g) ASSISTANCE TO MUNICIPALITIES FOR ENERGY AND MATERIALS CONSERVATION AND RECOVERY PLANNING ACTIVITIES.—(1) The Administrator is authorized to make grants to municipalities, regional authorities, and intermunicipal agencies to carry out activities described in subparagraphs (A) and (B) of section 4003(b)(1).<sup>31</sup> Such grants may be made only pursuant to an application submitted to the Administrator by the municipality which application has been approved by the State and determined by the State to be consistent with any State plan approved or submitted under this subtitle or any other appropriate planning carried out by the State.

(2) There is authorized to be appropriated for the fiscal year beginning October 1, 1981, and for each fiscal year thereafter before October 1, 1986, \$8,000,000 for purposes of making grants to municipalities under this subsection. No amount may be appropriated for such purposes for the fiscal year beginning on October 1, 1986, or for any fiscal year thereafter.

(3) Assistance provided by the Administrator under this subsection shall be used only for the purposes specified in paragraph (1). Such assistance may not be used for purposes of land acquisition, final facility design, equipment purchase, construction, start-up or operation activities.

[42 U.S.C. 6948]

#### RURAL COMMUNITIES ASSISTANCE

SEC. 4009. (a) IN GENERAL.—The Administrator shall make grants to States to provide assistance to municipalities with a population of five thousand or less, or counties with a population of ten thousand or less or less than twenty persons per square mile and not within a metropolitan area, for solid waste management facilities (including equipment) necessary to meet the requirements of section 4005 of this Act or restrictions on open burning or other requirements arising under the Clean Air Act or the Federal Water Pollution Control Act. Such assistance shall only be available—

(1) to any municipality or county which could not feasibly be included in a solid waste management system or facility serving an urbanized, multijurisdictional area because of its distance from such systems;

(2) where existing or planned solid waste management services or facilities are unavailable or insufficient to comply with the requirements of section 4005 of this Act; and

(3) for systems which are certified by the State to be consistent with any plans or programs established under any State or areawide planning process.

(b) ALLOTMENT.—The Administrator shall allot the sums appropriated to carry out this section in any fiscal year among the States in accordance with regulations promulgated by him on the

<sup>31</sup> See footnote 1 under section 4008(a)(1).

basis of the average of the ratio which the population of rural areas of each State bears to the total population of rural areas of all the States, the ratio which the population of counties in each State having less than twenty persons per square mile bears to the total population of such counties in all the States, and the ratio which the population of such low-density counties in each State having 33 per centum or more of all families with incomes not in excess of 125 per centum of the poverty level bears to the total population of such counties in all the States.

(c) LIMIT.—The amount of any grant under this section shall not exceed 75 per centum of the costs of the project. No assistance under this section shall be available for the acquisition of land or interests in land.

(d) APPROPRIATIONS.—There are authorized to be appropriated \$25,000,000 for each of the fiscal years 1978 and 1979 to carry out this section. There are authorized to be appropriated \$10,000,000 for the fiscal year 1980 and \$15,000,000 for each of the fiscal years 1981 and 1982 to carry out this section.

(e) ADDITIONAL APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to carry out this section for the Denali Commission to provide assistance to municipalities in the State of Alaska \$1,500,000 for each of fiscal years 2008 through 2012.

(2) ADMINISTRATION.—For the purpose of carrying out this subsection, the Denali Commission shall—

(A) be considered a State; and

(B) comply with all other requirements and limitations of this section.

[42 U.S.C. 6949]

#### ADEQUACY OF CERTAIN GUIDELINES AND CRITERIA

SEC. 4010. (a) STUDY.—The Administrator shall conduct a study of the extent to which the guidelines and criteria under this Act (other than guidelines and criteria for facilities to which subtitle C applies) which are applicable to solid waste management and disposal facilities, including, but not limited to landfills and surface impoundments, are adequate to protect human health and the environment from ground water contamination. Such study shall include a detailed assessment of the degree to which the criteria under section 1008(a) and the criteria under section 4004 regarding monitoring, prevention of contamination, and remedial action are adequate to protect ground water and shall also include recommendation with respect to any additional enforcement authorities which the Administrator, in consultation with the Attorney General, deems necessary for such purposes.

(b) REPORT.—Not later than thirty-six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall submit a report to the Congress setting forth the results of the study required under this section, together with any recommendations made by the Administrator on the basis of such study.

(c) REVISIONS OF GUIDELINES AND CRITERIA.—

(1) IN GENERAL.—Not later than March 31, 1988, the Administrator shall promulgate revisions of the criteria promulgated under paragraph (1) of section 4004(a) and under section 1008(a)(3) for facilities that may receive hazardous household wastes or hazardous wastes from small quantity generators under section 3001(d). The criteria shall be those necessary to protect human health and the environment and may take into account the practicable capability of such facilities. At a minimum such revisions for facilities potentially receiving such wastes should require ground water monitoring as necessary to detect contamination, establish criteria for the acceptable location of new or existing facilities, and provide for corrective action as appropriate.

(2)<sup>32</sup> ADDITIONAL REVISIONS.—Subject to paragraph (3), the requirements of the criteria described in paragraph (1) relating to ground water monitoring shall not apply to an owner or operator of a new municipal solid waste landfill unit, an existing municipal solid waste landfill unit, or a lateral expansion of a municipal solid waste landfill unit, that disposes of less than 20 tons of municipal solid waste daily, based on an annual average, if—

(A) there is no evidence of ground water contamination from the municipal solid waste landfill unit or expansion; and

(B) the municipal solid waste landfill unit or expansion serves—

(i) a community that experiences an annual interruption of at least 3 consecutive months of surface transportation that prevents access to a regional waste management facility; or

(ii) a community that has no practicable waste management alternative and the landfill unit is located in an area that annually receives less than or equal to 25 inches of precipitation.

(3) PROTECTION OF GROUND WATER RESOURCES.—

(A) MONITORING REQUIREMENT.—A State may require ground water monitoring of a solid waste landfill unit that would otherwise be exempt under paragraph (2) if necessary to protect ground water resources and ensure compliance with a State ground water protection plan, where applicable.

(B) METHODS.—If a State requires ground water monitoring of a solid waste landfill unit under subparagraph (A), the State may allow the use of a method other than the use of ground water monitoring wells to detect a release of contamination from the unit.

<sup>32</sup>Section 4010(c)(2) was added by subsection (a) of section 3 of Public Law 104–119. Subsection (b) of section 3 of such law [42 U.S.C. 6949a note] provides:

(b) REINSTATEMENT OF REGULATORY EXEMPTION.—It is the intent of section 4010(c)(2) of the Solid Waste Disposal Act, as added by subsection (a), to immediately reinstate subpart E of part 258 of title 40, Code of Federal Regulations, as added by the final rule published at 56 Federal Register 50798 on October 9, 1991.

(C) CORRECTIVE ACTION.—If a State finds a release from a solid waste landfill unit, the State shall require corrective action as appropriate.

(4) NO-MIGRATION EXEMPTION.—

(A) IN GENERAL.—Ground water monitoring requirements may be suspended by the Director of an approved State for a landfill operator if the operator demonstrates that there is no potential for migration of hazardous constituents from the unit to the uppermost aquifer during the active life of the unit and the post-closure care period.

(B) CERTIFICATION.—A demonstration under subparagraph (A) shall be certified by a qualified ground-water scientist and approved by the Director of an approved State.

(C) GUIDANCE.—Not later than 6 months after the date of enactment of this paragraph, the Administrator shall issue a guidance document to facilitate small community use of the no migration<sup>33</sup> exemption under this paragraph.

(5) ALASKA NATIVE VILLAGES.—Upon certification by the Governor of the State of Alaska that application of the requirements described in paragraph (1) to a solid waste landfill unit of a Native village (as defined in section 3 of the Alaska Native Claims Settlement Act (16 U.S.C. 1602)<sup>34</sup>) or unit that is located in or near a small, remote Alaska village would be infeasible, or would not be cost-effective, or is otherwise inappropriate because of the remote location of the unit, the State may exempt the unit from some or all of those requirements. This paragraph shall apply only to solid waste landfill units that dispose of less than 20 tons of municipal solid waste daily, based on an annual average.

(6) FURTHER REVISIONS OF GUIDELINES AND CRITERIA.—Recognizing the unique circumstances of small communities, the Administrator shall, not later than two years after enactment of this provision promulgate revisions to the guidelines and criteria promulgated under this subtitle to provide additional flexibility to approved States to allow landfills that receive 20 tons or less of municipal solid waste per day, based on an annual average, to use alternative frequencies of daily cover application, frequencies of methane gas monitoring, infiltration layers for final cover, and means for demonstrating financial assurance: *Provided*, That such alternative requirements take into account climatic and hydrogeologic conditions and are protective of human health and environment.

[42 U.S.C. 6949a]

<sup>33</sup> So in original. Probably should read “no-migration”.

<sup>34</sup> So in original. Probably should read “(43 U.S.C. 1602)”.



## Subtitle E—Duties of the Secretary of Commerce in Resource and Recovery

## FUNCTIONS

SEC. 5001. The Secretary of Commerce shall encourage greater commercialization of proven resource recovery technology by providing—

- (1) accurate specifications for recovered materials;
- (2) stimulation of development of markets for recovered materials;
- (3) promotion of proven technology; and
- (4) a forum for the exchange of technical and economic data relating to resource recovery facilities.

[42 U.S.C. 6951]

## DEVELOPMENT OF SPECIFICATIONS FOR SECONDARY MATERIALS

SEC. 5002. The Secretary of Commerce, acting through the National Bureau of Standards, and in conjunction with national standards-setting organizations in resource recovery, shall, after public hearings, and not later than two years after September 1, 1979, publish guidelines for the development of specifications for the classification of materials recovered from waste which were destined for disposal. The specifications shall pertain to the physical and chemical properties and characteristics of such materials with regard to their use in replacing virgin materials in various industrial, commercial, and governmental uses. In establishing such guidelines the Secretary shall also, to the extent feasible, provide such information as may be necessary to assist Federal agencies with procurement of items containing recovered materials. The Secretary shall continue to cooperate with national standards-setting organizations, as may be necessary, to encourage the publication, promulgation and updating of standards for recovered materials and for the use of recovered materials in various industrial, commercial, and governmental uses.

[42 U.S.C. 6952]

## DEVELOPMENT OF MARKETS FOR RECOVERED MATERIALS

SEC. 5003. The Secretary of Commerce shall within two years after September 1, 1979, take such actions as may be necessary to—

- (1) identify the geographical location of existing or potential markets for recovered materials;
- (2) identify the economic and technical barriers to the use of recovered materials; and
- (3) encourage the development of new uses for recovered materials.

[42 U.S.C. 6953]

## TECHNOLOGY PROMOTION

SEC. 5004. The Secretary of Commerce is authorized to evaluate the commercial feasibility of resource recovery facilities and to

publish the results of such evaluation, and to develop a data base for purposes of assisting persons in choosing such a system.

[42 U.S.C. 6954]

#### NONDISCRIMINATION REQUIREMENT

SEC. 5005. In establishing any policies which may affect the development of new markets for recovered materials and in making any determination concerning whether or not to impose monitoring or other controls on any marketing or transfer of recovered materials, the Secretary of Commerce may consider whether to establish the same or similar policies or impose the same or similar monitoring or other controls on virgin materials.

[42 U.S.C. 6955]

#### AUTHORIZATION OF APPROPRIATIONS

SEC. 5006. There are authorized to be appropriated to the Secretary of Commerce \$5,000,000 for each of fiscal years 1980, 1981, and 1982 and \$1,500,000 for each of the fiscal years 1985 through 1988 to carry out the purposes of this subtitle.

[42 U.S.C. 6956]

### Subtitle F—Federal Responsibilities

#### APPLICATION OF FEDERAL, STATE, AND LOCAL LAW TO FEDERAL FACILITIES

SEC. 6001. (a)<sup>35</sup> IN GENERAL.—Each department, agency, and instrumentality of the executive, legislative, and judicial branches

<sup>35</sup>Section 102(c) of the Federal Facility Compliance Act of 1992 (Public Law 102–386) provides:

##### (c) EFFECTIVE DATES.—

(1) IN GENERAL.—Except as otherwise provided in paragraphs (2) and (3), the amendments made by subsection (a) shall take effect upon the date of the enactment of this Act.

(2) DELAYED EFFECTIVE DATE FOR CERTAIN MIXED WASTE.—Until the date that is 3 years after the date of the enactment of this Act, the waiver of sovereign immunity contained in section 6001(a) of the Solid Waste Disposal Act with respect to civil, criminal, and administrative penalties and fines (as added by the amendments made by subsection (a)) shall not apply to departments, agencies, and instrumentalities of the executive branch of the Federal Government for violations of section 3004(j) of the Solid Waste Disposal Act involving storage of mixed waste that is not subject to an existing agreement, permit, or administrative or judicial order, so long as such waste is managed in compliance with all other applicable requirements.

(3) EFFECTIVE DATE FOR CERTAIN MIXED WASTE.—(A) Except as provided in subparagraph (B), after the date that is 3 years after the date of the enactment of this Act, the waiver of sovereign immunity contained in section 6001(a) of the Solid Waste Disposal Act with respect to civil, criminal, and administrative penalties and fines (as added by the amendments made by subsection (a)) shall apply to departments, agencies, and instrumentalities of the executive branch of the Federal Government for violations of section 3004(j) of the Solid Waste Disposal Act involving storage of mixed waste.

(B) With respect to the Department of Energy, the waiver of sovereign immunity referred to in subparagraph (A) shall not apply after the date that is 3 years after the date of the enactment of this Act for violations of section 3004(j) of such Act involving storage of mixed waste, so long as the Department of Energy is in compliance with both—

(i) a plan that has been submitted and approved pursuant to section 3021(b) of the Solid Waste Disposal Act and which is in effect; and

(ii) an order requiring compliance with such plan which has been issued pursuant to such section 3021(b) and which is in effect.

(4) APPLICATION OF WAIVER TO AGREEMENTS AND ORDERS.—The waiver of sovereign immunity contained in section 6001(a) of the Solid Waste Disposal Act (as added by the amendments made by subsection (a)) shall take effect on the date of the enactment of this Act with respect to any agreement, permit, or administrative or judicial order existing on such

Continued

of the Federal Government (1) having jurisdiction over any solid waste management facility or disposal site, or (2) engaged in any activity resulting, or which may result, in the disposal or management of solid waste or hazardous waste shall be subject to, and comply with, all Federal, State, interstate, and local requirements, both substantive and procedural (including any requirement for permits or reporting or any provisions for injunctive relief and such sanctions as may be imposed by a court to enforce such relief), respecting control and abatement of solid waste or hazardous waste disposal and management in the same manner, and to the same extent, as any person is subject to such requirements, including the payment of reasonable service charges. The Federal, State, interstate, and local substantive and procedural requirements referred to in this subsection include, but are not limited to, all administrative orders and all civil and administrative penalties and fines, regardless of whether such penalties or fines are punitive or coercive in nature or are imposed for isolated, intermittent, or continuing violations. The United States hereby expressly waives any immunity otherwise applicable to the United States with respect to any such substantive or procedural requirement (including, but not limited to, any injunctive relief, administrative order or civil or administrative penalty or fine referred to in the preceding sentence, or reasonable service charge). The reasonable service charges referred to in this subsection include, but are not limited to, fees or charges assessed in connection with the processing and issuance of permits, renewal of permits, amendments to permits, review of plans, studies, and other documents, and inspection and monitoring of facilities, as well as any other nondiscriminatory charges that are assessed in connection with a Federal, State, interstate, or local solid waste or hazardous waste regulatory program. Neither the United States, nor any agent, employee, or officer thereof, shall be immune or exempt from any process or sanction of any State or Federal Court with respect to the enforcement of any such injunctive relief. No agent, employee, or officer of the United States shall be personally liable for any civil penalty under any Federal, State, interstate, or local solid or hazardous waste law with respect to any act or omission within the scope of the official duties of the agent, employee, or officer. An agent, employee, or officer of the United States shall be subject to any criminal sanction (including, but not limited to, any fine or imprisonment) under any Federal or State solid or hazardous waste law, but no department, agency, or instrumentality of the executive, legislative, or judicial branch of the Federal Government shall be subject to any such sanction. The President may exempt any solid waste management facility of any de-

date of enactment (and any subsequent modifications to such an agreement, permit, or order), including, without limitation, any provision of an agreement, permit, or order that addresses compliance with section 3004(j) of such Act with respect to mixed waste.

(5) AGREEMENT OR ORDER.—Except as provided in paragraph (4), nothing in this Act shall be construed to alter, modify, or change in any manner any agreement, permit, or administrative or judicial order, including, without limitation, any provision of an agreement, permit, or order—

(i) that addresses compliance with section 3004(j) of the Solid Waste Disposal Act with respect to mixed waste;

(ii) that is in effect on the date of enactment of this Act; and

(iii) to which a department, agency, or instrumentality of the executive branch of the Federal Government is a party.

partment, agency, or instrumentality in the executive branch from compliance with such a requirement if he determines it to be in the paramount interest of the United States to do so. No such exemption shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods not to exceed one year upon the President's making a new determination. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting each such exemption.<sup>36</sup>

(b) ADMINISTRATIVE ENFORCEMENT ACTIONS.—(1) The Administrator may commence an administrative enforcement action against any department, agency, or instrumentality of the executive, legislative, or judicial branch of the Federal Government pursuant to the enforcement authorities contained in this Act. The Administrator shall initiate an administrative enforcement action against such a department, agency, or instrumentality in the same manner and under the same circumstances as an action would be initiated against another person. Any voluntary resolution or settlement of such an action shall be set forth in a consent order.

(2) No administrative order issued to such a department, agency, or instrumentality shall become final until such department, agency, or instrumentality has had the opportunity to confer with the Administrator.

(c) LIMITATION ON STATE USE OF FUNDS COLLECTED FROM FEDERAL GOVERNMENT.—Unless a State law in effect on the date of the enactment of the Federal Facility Compliance Act of 1992 or a State constitution requires the funds to be used in a different manner, all funds collected by a State from the Federal Government from penalties and fines imposed for violation of any substantive or procedural requirement referred to in subsection (a) shall be used by the State only for projects designed to improve or protect the environment or to defray the costs of environmental protection or enforcement.

[42 U.S.C. 6961]

#### FEDERAL PROCUREMENT

SEC. 6002. (a) APPLICATION OF SECTION.—Except as provided in subsection (b), a procuring agency shall comply with the requirements set forth in this section and any regulations issued under this section, with respect to any purchase or acquisition of a procurement item where the purchase price of the item exceeds \$10,000 or where the quantity of such items or of functionally

<sup>36</sup> Section 110 of the Federal Facility Compliance Act (Public Law 102-386) provides:

**SEC. 110. [42 U.S.C. 6965] CHIEF FINANCIAL OFFICER REPORT.**

The Chief Financial Officer of each affected agency shall submit to Congress an annual report containing, to the extent practicable, a detailed description of the compliance activities undertaken by the agency for mixed waste streams, and an accounting of the fines and penalties imposed on the agency for violations involving mixed waste.

equivalent items purchased or acquired in the course of the preceding fiscal year was \$10,000 or more.

(b) **PROCUREMENT SUBJECT TO OTHER LAW.**—Any procurement, by any procuring agency, which is subject to regulations of the Administrator under section 6004 (as promulgated before the date of enactment of this section under comparable provisions of prior law) shall not be subject to the requirements of this section to the extent that such requirements are inconsistent with such regulations.

(c) **REQUIREMENTS.**—(1) After the date specified in applicable guidelines prepared pursuant to subsection (e) of this section, each procuring agency which procures any items designated in such guidelines shall procure such items composed of the highest percentage of recovered materials practicable (and in the case of paper, the highest percentage of the postconsumer recovered materials referred to in subsection (h)(1) practicable), consistent with maintaining a satisfactory level of competition, considering such guidelines. The decision not to procure such items shall be based on a determination that such procurement items—

(A) are not reasonably available within a reasonable period of time;

(B) fail to meet the performance standards set forth in the applicable specifications or fail to meet the reasonable performance standards of the procuring agencies; or

(C) are only available at an unreasonable price. Any determination under subparagraph (B) shall be made on the basis of the guidelines of the Bureau of Standards in any case in which such material is covered by such guidelines.

(2) Agencies that generate heat, mechanical, or electrical energy from fossil fuel in systems that have the technical capability of using energy or fuels derived from solid waste as a primary or supplementary fuel shall use such capability to the maximum extent practicable.

(3)(A) After the date specified in any applicable guidelines prepared pursuant to subsection (e) of this section, contracting offices shall require that vendors—

(i) certify that the percentage of recovered materials to be used in the performance of the contract will be at least the amount required by applicable specifications or other contractual requirements and

(ii) estimate the percentage of the total material utilized for the performance of the contract which is recovered materials.

(B) Clause (ii) of subparagraph (A) applies only to a contract in an amount greater than \$100,000.

(d) **SPECIFICATIONS.**—All Federal agencies that have the responsibility for drafting or reviewing specifications for procurement items procured by Federal agencies shall—

(1) as expeditiously as possible but in any event no later than eighteen months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, eliminate from such specifications—

(A) any exclusion of recovered materials and

(B) any requirement that items be manufactured from virgin materials; and



(2) within one year after the date of publication of applicable guidelines under subsection (e), or as otherwise specified in such guidelines, assure that such specifications require the use of recovered materials to the maximum extent possible without jeopardizing the intended end use of the item.

(e) GUIDELINES.—The Administrator, after consultation with the Administrator of General Services, the Secretary of Commerce (acting through the Bureau of Standards), and the Public Printer, shall prepare, review not less frequently than once every 5 years, and, if appropriate, revise, in consultation with recyclers and manufacturers of products containing recycled content, not later than 2 years after the completion of the initial review after the date of enactment of the Infrastructure Investment and Jobs Act and thereafter, as appropriate, guidelines for the use of procuring agencies in complying with the requirements of this section. Such guidelines shall—

(1) designate those items which are or can be produced with recovered materials and whose procurement by procuring agencies will carry out the objectives of this section, and in the case of paper, provide for maximizing the use of postconsumer recovered materials referred to in subsection (h)(1); and

(2) set forth recommended practices with respect to the procurement of recovered materials and items containing such materials and with respect to certification by vendors of the percentage of recovered materials used, and shall provide information as to the availability, relative price, and performance of such materials and items and where appropriate shall recommend the level of recovered material to be contained in the procured product. The Administrator shall prepare final guidelines for paper within one hundred and eighty days after the enactment of the Hazardous and Solid Waste Amendments of 1984, and for three additional product categories (including tires) by October 1, 1985. In making the designation under paragraph (1), the Administrator shall consider, but is not limited in his considerations, to—

(A) the availability of such items;

(B) the impact of the procurement of such items by procuring agencies on the volume of solid waste which must be treated, stored or disposed of;

(C) the economic and technological feasibility of producing and using such items; and

(D) other uses for such recovered materials.

(f) PROCUREMENT OF SERVICES.—A procuring agency shall, to the maximum extent practicable, manage or arrange for the procurement of solid waste management services in a manner which maximizes energy and resource recovery.

(g) EXECUTIVE OFFICE.—The Office of Procurement Policy in the Executive Office of the President, in cooperation with the Administrator, shall implement the requirements of this section. It shall be the responsibility of the Office of Procurement Policy to coordinate this policy with other policies for Federal procurement, in such a way as to maximize the use of recovered resources, and to, every two years beginning in 1984, report to the Congress on ac-

tions taken by Federal agencies and the progress made in the implementation of this section, including agency compliance with subsection (d).

(h) DEFINITION.—As used in this section, in the case of paper products, the term “recovered materials” includes—

(1) postconsumer materials such as—

(A) paper, paperboard, and fibrous wastes from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; and

(B) all paper, paperboard, and fibrous wastes that enter and are collected from municipal solid waste, and

(2) manufacturing, forest residues, and other wastes such as—

(A) dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste, resulting from printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and

(B) finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others;

(C) fibrous byproducts of harvesting, manufacturing, extractive, or wood-cutting processes, flax, straw, linters, bagasse, slash, and other forest residues;

(D) wastes generated by the conversion of goods made from fibrous material (that is, waste rope from cordage manufacture, textile mill waste, and cuttings); and

(E) fibers recovered from waste water which otherwise would enter the waste stream.

(i) PROCUREMENT PROGRAM.—(1) Within one year after the date of publication of applicable guidelines under subsection (e), each procuring agency shall develop an affirmative procurement program which will assure that items composed of recovered materials will be purchased to the maximum extent practicable and which is consistent with applicable provisions of Federal procurement law.

(2) Each affirmative procurement program required under this subsection shall, at a minimum, contain—

(A) a recovered materials preference program;

(B) an agency promotion program to promote the preference program adopted under subparagraph (A);

(C) a program for requiring estimates of the total percentage of recovered material utilized in the performance of a contract; certification of minimum recovered material content actually utilized, where appropriate; and reasonable verification procedures for estimates and certifications; and

(D) annual review and monitoring of the effectiveness of an agency's affirmative procurement program. In the case of paper, the recovered materials preference program required under subparagraph (A) shall provide for the maximum use of the post consumer recovered materials referred to in subsection (h)(1).

(3) In developing the preference program, the following options shall be considered for adoption:

(A) Case-by-Case Policy Development: Subject to the limitations of subsection (c)(1) (A) through (C), a policy of awarding contracts to the vendor offering an item composed of the highest percentage of recovered materials practicable (and in the case of paper, the highest percentage of the post consumer recovered materials referred to in subsection (h)(1)). Subject to such limitations, agencies may make an award to a vendor offering items with less than the maximum recovered materials content.

(B) Minimum Content Standards: Minimum recovered materials content specifications which are set in such a way as to assure that the recovered materials content (and in the case of paper, the content of post consumer materials referred to in subsection (h)(1)) required is the maximum available without jeopardizing the intended end use of the item, or violating the limitations of subsection (c)(1) (A) through (C).

Procuring agencies shall adopt one of the options set forth in subparagraphs (A) and (B) or a substantially equivalent alternative, for inclusion in the affirmative procurement program.

(j) CONSULTATION AND PROVISION OF INFORMATION BY ADMINISTRATOR.—The Administrator shall—

(1) consult with each procuring agency, including contractors of the procuring agency, to clarify the responsibilities of the procuring agency under this section; and

(2) provide to each procuring agency information on the requirements under this section and the responsibilities of the procuring agency under this section.

(k) REPORTS.—The Administrator, in consultation with the Administrator of General Services, shall submit to Congress an annual report describing—

(1) the quantity of federally procured recycled products listed in the guidelines under subsection (e); and

(2) with respect to the products described in paragraph (1), the percentage of recycled material in each product.

【42 U.S.C. 6962】

#### COOPERATION WITH THE ENVIRONMENTAL PROTECTION AGENCY

SEC. 6003. (a) GENERAL RULE.—All Federal agencies shall assist the Administrator in carrying out his functions under this Act and shall promptly make available all requested information concerning past or present Agency waste management practices and past or present Agency owned, leased, or operated solid or hazardous waste facilities. This information shall be provided in such format as may be determined by the Administrator.

(b) INFORMATION RELATING TO ENERGY AND MATERIALS CONSERVATION AND RECOVERY.—The Administrator shall collect, maintain, and disseminate information concerning the market potential of energy and materials recovered from solid waste, including materials obtained through source separation, and information concerning the savings potential of conserving resources contributing to the waste stream. The Administrator shall identify the regions in which the increased substitution of such energy for energy derived from fossil fuels and other sources is most likely to be feasible, and provide information on the technical and economic aspects of developing integrated resource conservation or recovery systems which provide for the recovery of source-separated materials to be recycled or the conservation of resources. The Administrator shall utilize the authorities of subsection (a) in carrying out this subsection.

[42 U.S.C. 6963]

APPLICABILITY OF SOLID WASTE DISPOSAL GUIDELINES TO EXECUTIVE AGENCIES

SEC. 6004. (a) COMPLIANCE.—(1) If—

(A) an executive agency (as defined in section 105 of title 5, United States Code) or any unit of the legislative branch of the Federal Government has jurisdiction over any real property or facility the operation or administration of which involves such agency in solid waste management activities, or

(B) such an agency enters into a contract with any person for the operation by such person of any Federal property or facility, and the performance of such contract involves such person in solid waste management activities,

then such agency shall insure compliance with the guidelines recommended under section 1008 and the purposes of this Act in the operation or administration of such property or facility, or the performance of such contract, as the case may be.

(2) Each Executive agency or any unit of the legislative branch of the Federal Government which conducts any activity—

(A) which generates solid waste, and

(B) which, if conducted by a person other than such agency, would require a permit or license from such agency in order to dispose of such solid waste,

shall insure compliance with such guidelines and the purposes of this Act in conducting such activity.

(3) Each Executive agency which permits the use of Federal property for purposes of disposal of solid waste shall insure compliance with such guidelines and the purposes of this Act in the disposal of such waste.

(4) The President or the Committee on House Oversight of the House of Representatives and the Committee on Rules and Administration of the Senate with regard to any unit of the legislative branch of the Federal Government shall prescribe regulations to carry out this subsection.

(b) LICENSES AND PERMITS.—Each Executive agency which issues any license or permit for disposal of solid waste shall, prior to the issuance of such license or permit, consult with the Adminis-

trator to insure compliance with guidelines recommended under section 1008 and the purposes of this Act.

[42 U.S.C. 6964]

INCREASED USE OF RECOVERED MINERAL COMPONENT IN FEDERALLY FUNDED PROJECTS INVOLVING PROCUREMENT OF CEMENT OR CONCRETE

SEC. 6005. (a) DEFINITIONS.—In this section:

(1) AGENCY HEAD.—The term “agency head” means—

(A) the Secretary of Transportation; and

(B) the head of any other Federal agency that, on a regular basis, procures, or provides Federal funds to pay or assist in paying the cost of procuring, material for cement or concrete projects.

(2) CEMENT OR CONCRETE PROJECT.—The term “cement or concrete project” means a project for the construction or maintenance of a highway or other transportation facility or a Federal, State, or local government building or other public facility that—

(A) involves the procurement of cement or concrete;

and

(B) is carried out, in whole or in part, using Federal funds.

(3) RECOVERED MINERAL COMPONENT.—The term “recovered mineral component” means—

(A) ground granulated blast furnace slag, excluding lead slag;

(B) coal combustion fly ash; and

(C) any other waste material or byproduct recovered or diverted from solid waste that the Administrator, in consultation with an agency head, determines should be treated as recovered mineral component under this section for use in cement or concrete projects paid for, in whole or in part, by the agency head.

(b) IMPLEMENTATION OF REQUIREMENTS.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this section, the Administrator and each agency head shall take such actions as are necessary to implement fully all procurement requirements and incentives in effect as of the date of enactment of this section (including guidelines under section 6002) that provide for the use of cement and concrete incorporating recovered mineral component in cement or concrete projects.

(2) PRIORITY.—In carrying out paragraph (1), an agency head shall give priority to achieving greater use of recovered mineral component in cement or concrete projects for which recovered mineral components historically have not been used or have been used only minimally.

(3) FEDERAL PROCUREMENT REQUIREMENTS.—The Administrator and each agency head shall carry out this subsection in accordance with section 6002.

(c) FULL IMPLEMENTATION STUDY.—



(1) IN GENERAL.—The Administrator, in cooperation with the Secretary of Transportation and the Secretary of Energy, shall conduct a study to determine the extent to which procurement requirements, when fully implemented in accordance with subsection (b), may realize energy savings and environmental benefits attainable with substitution of recovered mineral component in cement used in cement or concrete projects.

(2) MATTERS TO BE ADDRESSED.—The study shall—

(A) quantify—

(i) the extent to which recovered mineral components are being substituted for Portland cement, particularly as a result of procurement requirements; and

(ii) the energy savings and environmental benefits associated with the substitution;

(B) identify all barriers in procurement requirements to greater realization of energy savings and environmental benefits, including barriers resulting from exceptions from the law; and

(C)(i) identify potential mechanisms to achieve greater substitution of recovered mineral component in types of cement or concrete projects for which recovered mineral components historically have not been used or have been used only minimally;

(ii) evaluate the feasibility of establishing guidelines or standards for optimized substitution rates of recovered mineral component in those cement or concrete projects; and

(iii) identify any potential environmental or economic effects that may result from greater substitution of recovered mineral component in those cement or concrete projects.

(3) REPORT.—Not later than 30 months after the date of enactment of this section, the Administrator shall submit to Congress a report on the study.

(d) ADDITIONAL PROCUREMENT REQUIREMENTS.—Unless the study conducted under subsection (c) identifies any effects or other problems described in subsection (c)(2)(C)(iii) that warrant further review or delay, the Administrator and each agency head shall, not later than 1 year after the date on which the report under subsection (c)(3) is submitted, take additional actions under this Act to establish procurement requirements and incentives that provide for the use of cement and concrete with increased substitution of recovered mineral component in the construction and maintenance of cement or concrete projects—

(1) to realize more fully the energy savings and environmental benefits associated with increased substitution; and

(2) to eliminate barriers identified under subsection (c)(2)(B).

(e) EFFECT OF SECTION.—Nothing in this section affects the requirements of section 6002 (including the guidelines and specifications for implementing those requirements).

[42 U.S.C. 6966]

**SEC. 6005. INCREASED USE OF RECOVERED MINERAL COMPONENT IN FEDERALLY FUNDED PROJECTS INVOLVING PROCUREMENT OF CEMENT OR CONCRETE.**<sup>37</sup>

(a) **DEFINITIONS.**—In this section:

(1) **AGENCY HEAD.**—The term “agency head” means—

(A) the Secretary of Transportation; and

(B) the head of each other Federal agency that on a regular basis procures, or provides Federal funds to pay or assist in paying the cost of procuring, material for cement or concrete projects.

(2) **CEMENT OR CONCRETE PROJECT.**—The term “cement or concrete project” means a project for the construction or maintenance of a highway or other transportation facility or a Federal, State, or local government building or other public facility that—

(A) involves the procurement of cement or concrete; and

(B) is carried out in whole or in part using Federal funds.

(3) **RECOVERED MINERAL COMPONENT.**—The term “recovered mineral component” means—

(A) ground granulated blast furnace slag other than lead slag;

(B) coal combustion fly ash;

(C) blast furnace slag aggregate other than lead slag aggregate;

(D) silica fume; and

(E) any other waste material or byproduct recovered or diverted from solid waste that the Administrator, in consultation with an agency head, determines should be treated as recovered mineral component under this section for use in cement or concrete projects paid for, in whole or in part, by the agency head.

(b) **IMPLEMENTATION OF REQUIREMENTS.**—

(1) **IN GENERAL.**—Not later than 1 year after the date of enactment of this section, the Administrator and each agency head shall take such actions as are necessary to implement fully all procurement requirements and incentives in effect as of the date of enactment of this section (including guidelines under section 6002) that provide for the use of cement and concrete incorporating recovered mineral component in cement or concrete projects.

(2) **PRIORITY.**—In carrying out paragraph (1) an agency head shall give priority to achieving greater use of recovered mineral component in cement or concrete projects for which recovered mineral components historically have not been used or have been used only minimally.

(3) **CONFORMANCE.**—The Administrator and each agency head shall carry out this subsection in accordance with section 6002.

(c) **FULL IMPLEMENTATION STUDY.**—

<sup>37</sup> So in law. Section 6017(a) of Public Law 109–59 added a second section 6005. Prior to the enactment of such public law, section 108(a) of Public Law 109–58 added a section 6005. They appear to be identical.

(1) IN GENERAL.—The Administrator, in cooperation with the Secretary of Transportation and the Secretary of Energy, shall conduct a study to determine the extent to which current procurement requirements, when fully implemented in accordance with subsection (b), may realize energy savings and environmental benefits attainable with substitution of recovered mineral component in cement used in cement or concrete projects.

(2) MATTERS TO BE ADDRESSED.—The study shall—

(A) quantify the extent to which recovered mineral components are being substituted for Portland cement, particularly as a result of current procurement requirements, and the energy savings and environmental benefits associated with that substitution;

(B) identify all barriers in procurement requirements to greater realization of energy savings and environmental benefits, including barriers resulting from exceptions from current law; and

(C)(i) identify potential mechanisms to achieve greater substitution of recovered mineral component in types of cement or concrete projects for which recovered mineral components historically have not been used or have been used only minimally;

(ii) evaluate the feasibility of establishing guidelines or standards for optimized substitution rates of recovered mineral component in those cement or concrete projects; and

(iii) identify any potential environmental or economic effects that may result from greater substitution of recovered mineral component in those cement or concrete projects.

(3) REPORT.—Not later than 30 months after the date of enactment of this section, the Administrator shall submit to Congress a report on the study.

(d) ADDITIONAL PROCUREMENT REQUIREMENTS.—Unless the study conducted under subsection (c) identifies any effects or other problems described in subsection (c)(2)(C)(iii) that warrant further review or delay, the Administrator and each agency head shall, not later than 1 year after the release of the report in accordance with subsection (c)(3), take additional actions authorized under this Act to establish procurement requirements and incentives that provide for the use of cement and concrete with increased substitution of recovered mineral component in the construction and maintenance of cement or concrete projects, so as to—

(1) realize more fully the energy savings and environmental benefits associated with increased substitution; and

(2) eliminate barriers identified under subsection (c).

(e) EFFECT OF SECTION.—Nothing in this section affects the requirements of section 6002 (including the guidelines and specifications for implementing those requirements).

[42 U.S.C. 6966a]

#### SEC. 6006. USE OF GRANULAR MINE TAILINGS.

(a) MINE TAILINGS.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this section, the Administrator, in consultation with the Secretary of Transportation and heads of other Federal agencies, shall establish criteria (including an evaluation of whether to establish a numerical standard for concentration of lead and other hazardous substances) for the safe and environmentally protective use of granular mine tailings from the Tar Creek, Oklahoma Mining District, known as “chat”, for—

(A) cement or concrete projects; and

(B) transportation construction projects (including transportation construction projects involving the use of asphalt) that are carried out, in whole or in part, using Federal funds.

(2) REQUIREMENTS.—In establishing criteria under paragraph (1), the Administrator shall consider—

(A) the current and previous uses of granular mine tailings as an aggregate for asphalt; and

(B) any environmental and public health risks and benefits derived from the removal, transportation, and use in transportation projects of granular mine tailings.

(3) PUBLIC PARTICIPATION.—In establishing the criteria under paragraph (1), the Administrator shall solicit and consider comments from the public.

(4) APPLICABILITY OF CRITERIA.—On the establishment of the criteria under paragraph (1), any use of the granular mine tailings described in paragraph (1) in a transportation project that is carried out, in whole or in part, using Federal funds, shall meet the criteria established under paragraph (1).

(b) EFFECT OF SECTIONS.—Nothing in this section or section 6005 affects any requirement of any law (including a regulation) in effect on the date of enactment of this section.

[42 U.S.C. 6966b]

#### Subtitle G—Miscellaneous Provisions

##### EMPLOYEE PROTECTION

SEC. 7001. (a) GENERAL.—No person shall fire, or in any other way discriminate against, or cause to be fired or discriminated against, any employee or any authorized representative of employees by reason of the fact that such employee or representative has filed, instituted, or caused to be filed or instituted any proceeding under this Act or under any applicable implementation plan, or has testified or is about to testify in any proceeding resulting from the administration or enforcement of the provisions of this Act or of any applicable implementation plan.

(b) REMEDY.—Any employee or a representative of employees who believes that he has been fired or otherwise discriminated against by any person in violation of subsection (a) of this section may, within thirty days after such alleged violation occurs, apply to the Secretary of Labor for a review of such firing or alleged discrimination. A copy of the application shall be sent to such person who shall be the respondent. Upon receipt of such application, the Secretary of Labor shall cause such investigation to be made as he

deems appropriate. Such investigation shall provide an opportunity for a public hearing at the request of any party to such review to enable the parties to present information relating to such alleged violation. The parties shall be given written notice of the time and place of the hearing at least five days prior to the hearing. Any such hearing shall be of record and shall be subject to section 554 of title 5 of the United States Code. Upon receiving the report of such investigation, the Secretary of Labor shall make findings of fact. If he finds that such violation did occur, he shall issue a decision, incorporating an order therein and his findings, requiring the party committing such violation to take such affirmative action to abate the violation as the Secretary of Labor deems appropriate, including, but not limited to, the rehiring or reinstatement of the employee or representative of employees to his former position with compensation. If he finds that there was no such violation he shall issue an order denying the application. Such order issued by the Secretary of Labor under this subparagraph shall be subject to judicial review in the same manner as orders and decisions of the Administrator or subject to judicial review under this Act.

(c) COSTS.—Whenever an order is issued under this section to abate such violation, at the request of the applicant, a sum equal to the aggregate amount of all costs and expenses (including the attorney's fees) as determined by the Secretary of Labor, to have been reasonably incurred by the applicant for, or in connection with, the institution and prosecution of such proceedings, shall be assessed against the person committing such violation.

(d) EXCEPTION.—This section shall have no application to any employee who, acting without direction from his employer (or his agent) deliberately violates any requirement of this Act.

(e) EMPLOYMENT SHIFTS AND LOSS.—The Administrator shall conduct continuing evaluations of potential loss or shifts of employment which may result from the administration or enforcement of the provisions of this Act and applicable implementation plans, including, where appropriate, investigating threatened plant closures or reductions in employment allegedly resulting from such administration or enforcement. Any employee who is discharged, or laid off, threatened with discharge or layoff, or otherwise discriminated against by any person because of the alleged results of such administration or enforcement, or any representative of such employee, may request the Administrator to conduct a full investigation of the matter. The Administrator shall thereupon investigate the matter and, at the request of any party, shall hold public hearings on not less than five days' notice, and shall at such hearings require the parties, including the employer involved, to present information relating to the actual or potential effect of such administration or enforcement on employment and on any alleged discharge, layoff, or other discrimination and the detailed reasons or justification therefor. Any such hearing shall be of record and shall be subject to section 554 of title 5 of the United States Code. Upon receiving the report of such investigation, the Administrator shall make findings of fact as to the effect of such administration or enforcement on employment and on the alleged discharge, layoff, or discrimination and shall make such recommendations as he deems appropriate. Such report, findings, and recommendations shall be avail-



able to the public. Nothing in this subsection shall be construed to require or authorize the Administrator or any State to modify or withdraw any standard, limitation, or any other requirement of this Act or any applicable implementation plan.

(f) OCCUPATIONAL SAFETY AND HEALTH.—In order to assist the Secretary of Labor and the Director of the National Institute for Occupational Safety and Health in carrying out their duties under the Occupational Safety and Health Act of 1970, the Administrator shall—

(1) provide the following information, as such information becomes available, to the Secretary and the Director:

(A) the identity of any hazardous waste generation, treatment, storage, disposal facility or site where cleanup is planned or underway;

(B) information identifying the hazards to which persons working at a hazardous waste generation, treatment, storage, disposal facility or site or otherwise handling hazardous waste may be exposed, the nature and extent of the exposure, and methods to protect workers from such hazards; and

(C) incidents of worker injury or harm at a hazardous waste generation, treatment, storage or disposal facility or site; and

(2) notify the Secretary and the Director of the Administrator's receipt of notifications under section 3010 or reports under sections 3002, 3003, and 3004 of this title and make such notifications and reports available to the Secretary and the Director.

[42 U.S.C. 6971]

#### CITIZEN SUITS

SEC. 7002. (a) IN GENERAL.—Except as provided in subsection (b) or (c) of this section, any person may commence a civil action on his own behalf—

(1)(A) against any person (including (a) the United States, and (b) any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of any permit, standard, regulation, condition, requirement, prohibition, or order which has become effective pursuant to this Act; or

(B) against any person, including the United States and any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the Constitution, and including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility, who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment; or

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator.

Any action under paragraph (a)(1) of this subsection shall be brought in the district court for the district in which the alleged violation occurred or the alleged endangerment may occur. Any action brought under paragraph (a)(2) of this subsection may be brought in the district court for the district in which the alleged violation occurred or in the District Court of the District of Columbia. The district court shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce the permit, standard, regulation, condition, requirement, prohibition, or order, referred to in paragraph (1)(A), to restrain any person who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste referred to in paragraph (1)(B), to order such person to take such other action as may be necessary, or both, or to order the Administrator to perform the act or duty referred to in paragraph (2), as the case may be, and to apply any appropriate civil penalties under section 3008 (a) and (g).

(b) ACTIONS PROHIBITED.—(1) No action may be commenced under subsection (a)(1)(A) of this section—

(A) prior to 60 days after the plaintiff has given notice of the violation to—

- (i) the Administrator;
- (ii) the State in which the alleged violation occurs; and
- (iii) to any alleged violator of such permit, standard, regulation, condition, requirement, prohibition, or order, except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of subtitle C of this Act; or

(B) if the Administrator or State has commenced and is diligently prosecuting a civil or criminal action in a court of the United States or a State to require compliance with such permit, standard, regulation, condition, requirement, prohibition, or order.

In any action under subsection (a)(1)(A) in a court of the United States, any person may intervene as a matter of right.

(2)(A) No action may be commenced under subsection (a)(1)(B) of this section prior to ninety days after the plaintiff has given notice of the endangerment to—

- (i) the Administrator;
- (ii) the State in which the alleged endangerment may occur;
- (iii) any person alleged to have contributed or to be contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste referred to in subsection (a)(1)(B),

except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of subtitle C of this Act.

(B) No action may be commenced under subsection (a)(1)(B) of this section if the Administrator, in order to restrain or abate acts or conditions which may have contributed or are contributing to the activities which may present the alleged endangerment—

- (i) has commenced and is diligently prosecuting an action under section 7003 of this Act or under section 106 of the Com-

prehensive Environmental Response, Compensation and Liability Act of 1980,<sup>38</sup>

(ii) is actually engaging in a removal action under section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980;

(iii) has incurred costs to initiate a Remedial Investigation and Feasibility Study under section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 and is diligently proceeding with a remedial action under that Act; or

(iv) has obtained a court order (including a consent decree) or issued an administrative order under section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980<sup>39</sup> or section 7003 of this Act pursuant to which a responsible party is diligently conducting a removal action, Remedial Investigation and Feasibility Study (RIFS), or proceeding with a remedial action.

In the case of an administrative order referred to in clause (iv), actions under subsection (a)(1)(B) are prohibited only as to the scope and duration of the administrative order referred to in clause (iv).

(C) No action may be commenced under subsection (a)(1)(B) of this section if the State, in order to restrain or abate acts or conditions which may have contributed or are contributing to the activities which may present the alleged endangerment—

(i) has commenced and is diligently prosecuting an action under subsection (a)(1)(B);

(ii) is actually engaging in a removal action under section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980; or

(iii) has incurred costs to initiate a Remedial Investigation and Feasibility Study under section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 and is diligently proceeding with a remedial action under that Act.

(D) No action may be commenced under subsection (a)(1)(B) by any person (other than a State or local government) with respect to the siting of a hazardous waste treatment, storage, or a disposal facility, nor to restrain or enjoin the issuance of a permit for such facility.

(E) In any action under subsection (a)(1)(B) in a court of the United States, any person may intervene as a matter of right when the applicant claims an interest relating to the subject of the action and he is so situated that the disposition of the action may, as a practical matter, impair or impede his ability to protect that interest, unless the Administrator or the State shows that the applicant's interest is adequately represented by existing parties.

(F) Whenever any action is brought under subsection (a)(1)(B) in a court of the United States, the plaintiff shall serve a copy of the complaint on the Attorney General of the United States and with the Administrator.

<sup>38</sup> So in law. The comma probably should be a semicolon.

<sup>39</sup> So in law. Probably should be "1980".

(c) NOTICE.—No action may be commenced under paragraph (a)(2) of this section prior to 60 days after the plaintiff has given notice to the Administrator that he will commence such action, except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of subtitle C of this Act. Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation. Any action respecting a violation under this Act may be brought under this section only in the judicial district in which such alleged violation occurs.

(d) INTERVENTION.—In any action under this section the Administrator, if not a party, may intervene as a matter of right.

(e) COSTS.—The court, in issuing any final order in any action brought pursuant to this section or section 7006, may award costs of litigation (including reasonable attorney and expert witness fees) to the prevailing or substantially prevailing party, whenever the court determines such an award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

(f) OTHER RIGHTS PRESERVED.—Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any standard or requirement relating to the management of solid waste or hazardous waste, or to seek any other relief (including relief against the Administrator or a State agency).

(g) TRANSPORTERS.—A transporter shall not be deemed to have contributed or to be contributing to the handling, storage, treatment, or disposal, referred to in subsection (a)(1)(B) taking place after such solid waste or hazardous waste has left the possession or control of such transporter, if the transportation of such waste was under a sole contractual arrangement arising from a published tariff and acceptance for carriage by common carrier by rail and such transporter has exercised due care in the past or present handling, storage, treatment, transportation and disposal of such waste.

[42 U.S.C. 6972]

#### IMMINENT HAZARD

SEC. 7003. (a) AUTHORITY OF ADMINISTRATOR.—Notwithstanding any other provision of this Act, upon receipt of evidence that the past or present handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment, the Administrator may bring suit on behalf of the United States in the appropriate district court against any person (including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility) who has contributed or who is contributing to the alleged disposal to restrain such person from such handling, storage, treatment, transportation, or disposal, to order such person to take such other action as may be necessary, or both. A transporter shall not be deemed to have contributed or to be con-

tributing to such handling, storage, treatment, or disposal taking place after such solid waste or hazardous waste has left the possession or control of such transporter if the transportation of such waste was under a sole contractual<sup>40</sup> arrangement arising from a published tariff and acceptance for carriage by common carrier by rail and such transporter has exercised due care in the past or present handling, storage, treatment, transportation and disposal of such waste. The Administrator shall provide notice to the affected State of any such suit. The Administrator may also, after notice to the affected State, take other action under this section including, but not limited to, issuing such orders as may be necessary to protect public health and the environment.

(b) VIOLATIONS.—Any person who willfully violates, or fails or refuses to comply with, any order of the Administrator under subsection (a) may, in an action brought in the appropriate United States district court to enforce such order, be fined not more than \$5,000 for each day in which such violation occurs or such failure to comply continues.

(c) IMMEDIATE NOTICE.—Upon receipt of information that there is hazardous waste at any site which has presented an imminent and substantial endangerment to human health or the environment, the Administrator shall provide immediate notice to the appropriate local government agencies. In addition, the Administrator shall require notice of such endangerment to be promptly posted at the site where the waste is located.

(d) PUBLIC PARTICIPATION IN SETTLEMENTS.—Whenever the United States or the Administrator proposes to covenant not to sue or to forbear from suit or to settle any claim arising under this section, notice, and opportunity for a public meeting in the affected area, and a reasonable opportunity to comment on the proposed settlement prior to its final entry shall be afforded to the public. The decision of the United States or the Administrator to enter into or not to enter into such Consent Decree, covenant or agreement shall not constitute a final agency action subject to judicial review under this Act or the Administrative Procedure Act.

[42 U.S.C. 6973]

#### PETITION FOR REGULATIONS; PUBLIC PARTICIPATION

SEC. 7004. (a) PETITION.—Any person may petition the Administrator for the promulgation, amendment, or repeal of any regulation under this Act. Within a reasonable time following receipt of such petition, the Administrator shall take action with respect to such petition, and shall publish notice of such action in the Federal Register, together with the reasons therefor.

(b) PUBLIC PARTICIPATION.—(1) Public participation in the development, revision, implementation, and enforcement of any regulation, guideline, information, or program under this Act shall be provided for, encouraged, and assisted by the Administrator and the States. The Administrator, in cooperation with the States, shall develop and publish minimum guidelines for public participation in such processes.

<sup>40</sup>So in law. Probably should be “contractual”.



(2) Before the issuing of a permit to any person with any respect to<sup>41</sup> any facility for the treatment, storage, or disposal of hazardous wastes under section 3005, the Administrator shall—

(A) cause to be published in major local newspapers of general circulation and broadcast over local radio stations notice of the agency's intention to issue such permit, and

(B) transmit in writing notice of the agency's intention to issue such permit to each unit of local government having jurisdiction over the area in which such facility is proposed to be located and to each State agency having any authority under State law with respect to the construction or operation of such facility.

If within 45 days the Administrator receives written notice of opposition to the agency's intention to issue such permit and a request for a hearing, or if the Administrator determines on his own initiative, he shall hold an informal public hearing (including an opportunity for presentation of written and oral views) on whether he should issue a permit for the proposed facility. Whenever possible the Administrator shall schedule such hearing at a location convenient to the nearest population center to such proposed facility and give notice in the aforementioned manner of the date, time, and subject matter of such hearing. No State program which provides for the issuance of permits referred to in this paragraph may be authorized by the Administrator under section 3006 unless such program provides for the notice and hearing required by the paragraph.

【42 U.S.C. 6974】

#### SEPARABILITY

SEC. 7005. If any provision of this Act, or the application of any provision of this Act to any person or circumstance, is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Act, shall not be affected thereby.

【42 U.S.C. 6975】

#### JUDICIAL REVIEW

SEC. 7006. (a) REVIEW OF FINAL REGULATIONS AND CERTAIN PETITIONS.—Any judicial review of final regulations promulgated pursuant to this Act and the Administrator's denial of any petition for the promulgation, amendment, or repeal of any regulation under this Act shall be in accordance with sections 701 through 706 of title 5 of the United States Code, except that—

(1) a petition for review of action of the Administrator in promulgating any regulation, or requirement under this Act or denying any petition for the promulgation, amendment or repeal of any regulation under this Act may be filed only in the United States Court of Appeals for the District of Columbia, and such petition shall be filed within ninety days from the date of such promulgation or denial or after such date if such petition is for review based solely on grounds arising after such ninetieth day; action of the Administrator with respect to

<sup>41</sup>So in law. Probably should be "with respect to".

which review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement; and

(2) in any judicial proceeding brought under this section in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if a party seeking review under this Act applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that the information is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, and to be adduced upon the hearing in such manner and upon such terms and conditions as the court may deem proper; the Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file with the court such modified or new findings and his recommendation, if any, for the modification or setting aside of his original order, with the return of such additional evidence.

(b) REVIEW OF CERTAIN ACTIONS UNDER SECTIONS 3005 AND 3006.—Review of the Administrator's action (1) in issuing, denying, modifying, or revoking any permit under section 3005 (or in modifying or revoking any permit which is deemed to have been issued under section 3012(d)(1))<sup>42</sup>, or (2) in granting, denying, or withdrawing authorization or interim authorization under section 3006, may be had by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts such business upon application by such person. Any such application shall be made within ninety days from the date of such issuance, denial, modification, revocation, grant, or withdrawal, or after such date only if such application is based solely on grounds which arose after such ninetieth day. Action of the Administrator with respect to which review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement. Such review shall be in accordance with sections 701 through 706 of title 5 of the United States Code.

[42 U.S.C. 6976]

#### GRANTS OR CONTRACTS FOR TRAINING PROJECTS

SEC. 7007. (a) GENERAL AUTHORITY.—The Administrator is authorized to make grants to, and contracts with any eligible organization. For purposes of this section the term “eligible organization” means a State or interstate agency, a municipality, educational institution, and any other organization which is capable of effectively carrying out a project which may be funded by grant under subsection (b) of this section.

(b) PURPOSES.—(1) Subject to the provisions of paragraph (2), grants or contracts may be made to pay all or a part of the costs,

<sup>42</sup>The reference in section 7006(b) to section 3012(d)(1) should be a reference to section 3014(d)(1), pursuant to the renumbering made by Public Law 98–616.

as may be determined by the Administrator, of any project operated or to be operated by an eligible organization, which is designed—

(A) to develop, expand, or carry out a program (which may combine training, education, and employment) for training persons for occupations involving the management, supervision, design, operation, or maintenance of solid waste management and resource recovery equipment and facilities; or

(B) to train instructors and supervisory personnel to train or supervise persons in occupations involving the design, operation, and maintenance of solid waste management and resource recovery equipment and facilities.

(2) A grant or contract authorized by paragraph (1) of this subsection may be made only upon application to the Administrator at such time or times and containing such information as he may prescribe, except that no such application shall be approved unless it provides for the safe procedures and reports (and access to such reports and to other records) as required by section 207(b) (4) and (5) (as in effect before the date of the enactment of Resource Conservation and Recovery Act of 1976) with respect to applications made under such section (as in effect before the date of the enactment of Resource Conservation and Recovery Act of 1976).

[42 U.S.C. 6977]

#### PAYMENTS

SEC. 7008. (a) GENERAL RULE.—Payments of grants under this Act may be made (after necessary adjustment on account of previously made underpayments or overpayments) in advance or by way of reimbursement, and in such installments and on such conditions as the Administrator may determine.

(b) PROHIBITION.—No grant may be made under this Act to any private profitmaking organization.

[42 U.S.C. 6978]

#### LABOR STANDARDS

SEC. 7009. No grant for a project of construction under this Act shall be made unless the Administrator finds that the application contains or is supported by reasonable assurance that all laborers and mechanics employed by contractors or subcontractors on projects of the type covered by the Davis-Bacon Act, as amended (40 U.S.C. 276a—276a–5), will be paid wages at rates not less than those prevailing on similar work in the locality as determined by the Secretary of Labor in accordance with that Act; and the Secretary of Labor shall have with respect to the labor standards specified in this section the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 F.R. 3176; 5 U.S.C. 133z–5) and section 2 of the Act of June 13, 1934, as amended (40 U.S.C. 276c).

[42 U.S.C. 6979]

## LAW ENFORCEMENT AUTHORITY

SEC. 7010. The Attorney General of the United States shall, at the request of the Administrator and on the basis of a showing of need, deputize qualified employees of the Environmental Protection Agency to serve as special deputy United States marshals in criminal investigations with respect to violations of the criminal provisions of this Act.

[42 U.S.C. 6979b]

## Subtitle H—Research, Development, Demonstration, and Information

## RESEARCH, DEMONSTRATIONS, TRAINING, AND OTHER ACTIVITIES

SEC. 8001. (a) GENERAL AUTHORITY.—The Administrator, alone or after consultation with the Administrator of the Federal Energy Administration, the Administrator of the Energy Research and Development Administration, or the Chairman of the Federal Power Commission, shall conduct, and encourage, cooperate with, and render financial and other assistance to appropriate public (whether Federal, State, interstate, or local) authorities, agencies, and institutions, private agencies and institutions, and individuals in the conduct of, and promote the coordination of, research, investigations, experiments, training, demonstrations, surveys, public education programs, and studies relating to—

(1) any adverse health and welfare effects of the release into the environment of material present in solid waste, and methods to eliminate such effects;

(2) the operation and financing of solid waste management programs;

(3) the planning, implementation, and operation of resource recovery and resource conservation systems and hazardous waste management systems, including the marketing of recovered resources;

(4) the production of usable forms of recovered resources, including fuel, from solid waste;

(5) the reduction of the amount of such waste and unsalvageable waste materials;

(6) the development and application of new and improved methods of collecting and disposing of solid waste and processing and recovering materials and energy from solid wastes;

(7) the identification of solid waste components and potential materials and energy recoverable from such waste components;

(8) small scale and low technology solid waste management systems, including but not limited to, resource recovery source separation systems;

(9) methods to improve the performance characteristics of resources recovered from solid waste and the relationship of such performance characteristics to available and potentially available markets for such resources;

(10) improvements in land disposal practices for solid waste (including sludge) which may reduce the adverse environmental effects of such disposal and other aspects of solid

waste disposal on land, including means for reducing the harmful environmental effects of earlier and existing landfills, means for restoring areas damaged by such earlier or existing landfills, means for rendering landfills safe for purposes of construction and other uses, and techniques of recovering materials and energy from landfills;

(11) methods for the sound disposal of, or recovery of resources, including energy from sludge (including sludge from pollution control and treatment facilities, coal slurry pipelines, and other sources);

(12) methods of hazardous waste management, including methods of rendering such waste environmentally safe; and

(13) any adverse effects on air quality (particularly with regard to the emission of heavy metals) which result from solid waste which is burned (either alone or in conjunction with other substances) for purposes of treatment, disposal or energy recovery.

(b) MANAGEMENT PROGRAM.—(1)(A) In carrying out his functions pursuant to this Act, and any other Federal legislation respecting solid waste or discarded material research, development, and demonstrations, the Administrator shall establish a management program or system to insure the coordination of all such activities and to facilitate and accelerate the process of development of sound new technology (or other discoveries) from the research phase, through development, and into the demonstration phase.

(B) The Administrator shall (i) assist, on the basis of any research projects which are developed with assistance under this Act or without Federal assistance, the construction of pilot plant facilities for the purpose of investigating or testing the technological feasibility of any promising new fuel, energy, or resource recovery or resource conservation method or technology; and (ii) demonstrate each such method and technology that appears justified by an evaluation at such pilot plant stage or at a pilot plant stage developed without Federal assistance. Each such demonstration shall incorporate new or innovative technical advances or shall apply such advances to different circumstances and conditions, for the purpose of evaluating design concepts or to test the performance, efficiency, and economic feasibility of a particular method or technology under actual operating conditions. Each such demonstration shall be so planned and designed that, if successful, it can be expanded or utilized directly as a full-scale operational fuel, energy, or resource recovery or resource conservation facility.

(2) Any energy-related research, development, or demonstration project for the conversion including bioconversion, of solid waste carried out by the Environmental Protection Agency or by the Energy Research and Development Administration pursuant to this or any other Act shall be administered in accordance with the May 7, 1976, Interagency Agreement between the Environmental Protection Agency and the Energy Research and Development Administration on the Development of Energy from Solid Wastes and specifically, that in accordance with this agreement, (A) for those energy-related projects of mutual interest, planning will be conducted jointly by the Environmental Protection Agency and the Energy Research and Development Administration, following which



project responsibility will be assigned to one agency; (B) energy-related portions of projects for recovery of synthetic fuels or other forms of energy from solid waste shall be the responsibility of the Energy Research and Development Administration; (C) the Environmental Protection Agency shall retain responsibility for the environmental, economic, and institutional aspects of solid waste projects and for assurance that such projects are consistent with any applicable suggested guidelines published pursuant to section 1008, and any applicable State or regional solid waste management plan; and (D) any activities undertaken under provisions of sections 8002 and 8003 as related to energy; as related to energy or synthetic fuels recovery from waste; or as related to energy conservation shall be accomplished through coordination and consultation with the Energy Research and Development Administration.

(c) AUTHORITIES.—(1) In carrying out subsection (a) of this section respecting solid waste research, studies, development, and demonstration, except as otherwise specifically provided in section 8004(d), the Administrator may make grants to or enter into contracts (including contracts for construction) with, public agencies and authorities or private persons.

(2) Contracts for research, development, or demonstrations or for both (including contracts for construction) shall be made in accordance with and subject to the limitations provided with respect to research contracts of the military departments in title 10, United States Code, section 2353, except that the determination, approval, and certification required thereby shall be made by the Administrator.

(3) Any invention made or conceived in the course of, or under, any contract under this Act shall be subject to section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 to the same extent and in the same manner as inventions made or conceived in the course of contracts under such Act, except that in applying such section, the Environmental Protection Agency shall be substituted for the Energy Research and Development Administration and the words “solid waste” shall be substituted for the word “energy” where appropriate.

(4) For carrying out the purpose of this Act the Administrator may detail personnel of the Environmental Protection Agency to agencies eligible for assistance under this section.

【42 U.S.C. 6981】

SPECIAL STUDIES; PLANS FOR RESEARCH, DEVELOPMENT, AND  
DEMONSTRATIONS

SEC. 8002. (a) GLASS AND PLASTIC.—The Administrator shall undertake a study and publish a report on resource recovery from glass and plastic waste, including a scientific, technological, and economic investigation of potential solutions to implement such recovery.

(b) COMPOSITION OF WASTE STREAM.—The Administrator shall undertake a systematic study of the composition of the solid waste stream and of anticipated future changes in the composition of such stream and shall publish a report containing the results of

such study and quantitatively evaluating the potential utility of such components.

(c) **PRIORITIES STUDY.**—For purposes of determining priorities for research on recovery of materials and energy from solid waste and developing materials and energy recovery research, development, and demonstration strategies, the Administrator shall review, and make a study of, the various existing and promising techniques of energy recovery from solid waste (including, but not limited to, waterwall furnace incinerators, dry shredded fuel systems, pyrolysis, densified refuse-derived fuel systems, anerobic digestion, and fuel and feedstock preparation systems). In carrying out such study the Administrator shall investigate with respect to each such technique—

(1) the degree of public need for the potential results of such research, development, or demonstration,

(2) the potential for research, development, and demonstration without Federal action, including the degree of restraint on such potential posed by the risks involved, and

(3) the magnitude of effort and period of time necessary to develop the technology to the point where Federal assistance can be ended.

(d) **SMALL-SCALE AND LOW TECHNOLOGY STUDY.**—The Administrator shall undertake a comprehensive study and analysis of, and publish a report on, systems of small-scale and low technology solid waste management, including household resource recovery and resource recovery systems which have special application to multiple dwelling units and high density housing and office complexes. Such study and analysis shall include an investigation of the degree to which such systems could contribute to energy conservation.

(e) **FRONT-END SOURCE SEPARATION.**—The Administrator shall undertake research and studies concerning the compatibility of front-end source separation systems with high technology resource recovery systems and shall publish a report containing the results of such research and studies.

(f) **MINING WASTE.**—The Administrator, in consultation with the Secretary of the Interior, shall conduct a detailed and comprehensive study on the adverse effects of solid wastes from active and abandoned surface and underground mines on the environment, including, but not limited to, the effects of such wastes on humans, water, air, health, welfare, and natural resources, and on the adequacy of means and measures currently employed by the mining industry, Government agencies, and others to dispose of and utilize such solid wastes and to prevent or substantially mitigate such adverse effects. Such study shall include an analysis of—

(1) the sources and volume of discarded material generated per year from mining;

(2) present disposal practices;

(3) potential dangers to human health and the environment from surface runoff to leachate and air pollution by dust;

(4) alternatives to current disposal methods;

(5) the cost of those alternatives in terms of the impact on mine product costs; and

(6) potential for use of discarded material as a secondary source of the mine product.

In furtherance of this study, the Administrator shall, as he deems appropriate, review studies and other actions of other Federal agencies concerning such wastes with a view toward avoiding duplication of effort and the need to expedite such study. Not later than thirty-six months after the date of the enactment of the Solid Waste Disposal Act Amendments of 1980 the Administrator shall publish a report of such study and shall include appropriate findings and recommendations for Federal and non-Federal actions concerning such effects. Such report shall be submitted to the Committee on Environment and Public Works of the United States Senate and the Committee on Interstate and Foreign Commerce of the United States House of Representatives.

(g) SLUDGE.—The Administrator shall undertake a comprehensive study and publish a report on sludge. Such study shall include an analysis of—

(1) what types of solid waste (including but not limited to sewage and pollution treatment residues and other residues from industrial operations such as extraction of oil from shale, liquefaction and gasification of coal and coal slurry pipeline operations) shall be classified as sludge;

(2) the effects of air and water pollution legislation on the creation of large volumes of sludge;

(3) the amounts of sludge originating in each State and in each industry producing sludge;

(4) methods of disposal of such sludge, including the cost, efficiency, and effectiveness of such methods;

(5) alternative methods for the use of sludge, including agricultural applications of sludge and energy recovery from sludge; and

(6) methods to reclaim areas which have been used for the disposal of sludge or which have been damaged by sludge.

(h) TIRES.—The Administrator shall undertake a study and publish a report respecting discarded motor vehicle tires which shall include an analysis of the problems involved in the collection, recovery of resources including energy, and use of such tires.

(i) RESOURCE RECOVERY FACILITIES.—The Administrator shall conduct research and report on the economics of, and impediments, to the effective functioning of resource recovery facilities.

(j) RESOURCE CONSERVATION COMMITTEE.—(1) The Administrator shall serve as Chairman of a Committee composed of himself, the Secretary of Commerce, the Secretary of Labor, the Chairman of the Council on Environmental Quality, the Secretary of the Treasury, the Secretary of the Interior, the Secretary of Energy, the Chairman of the Council of Economic Advisors, and a representative of the Office of Management and Budget, which shall conduct a full and complete investigation and study of all aspects of the economic, social, and environmental consequences of resource conservation with respect to—

(A) the appropriateness of recommended incentives and disincentives to foster resource conservation;

(B) the effect of existing public policies (including subsidies and economic incentives and disincentives, percentage depletion allowances, capital gains treatment and other tax incentives and disincentives) upon resource conservation, and the

likely effect of the modification or elimination of such incentives and disincentives upon resource conservation;

(C) the appropriateness and feasibility of restricting the manufacture or use of categories of consumer products as a resource conservation strategy;

(D) the appropriateness and feasibility of employing as a resource conservation strategy the imposition of solid waste management charges on consumer products, which charges would reflect the costs of solid waste management services, litter pickup, the value of recoverable components of such product, final disposal, and any social value associated with the nonrecycling or uncontrolled disposal of such product; and

(E) the need for further research, development, and demonstration in the area of resource conservation.

(2) The study required in paragraph (1)(D) may include pilot scale projects, and shall consider and evaluate alternative strategies with respect to—

(A) the product categories on which such charges would be imposed;

(B) the appropriate state in the production of such consumer product at which to levy such charge;

(C) appropriate criteria for establishing such charges for each consumer product category;

(D) methods for the adjustment of such charges to reflect actions such as recycling which would reduce the overall quantities of solid waste requiring disposal; and

(E) procedures for amending, modifying, or revising such charges to reflect changing conditions.

(3) The design for the study required in paragraph (1) of this subsection shall include timetables for the completion of the study. A preliminary report putting forth the study design shall be sent to the President and the Congress within six months following enactment of this section and followup reports shall be sent six months thereafter. Each recommendation resulting from the study shall include at least two alternatives to the proposed recommendation.

(4) The results of such investigation and study, including recommendations, shall be reported to the President and the Congress not later than two years after enactment of this subsection.

(5) There are authorized to be appropriated not to exceed \$2,000,000 to carry out this subsection.

(k) AIRPORT LANDFILLS.—The Administrator shall undertake a comprehensive study and analysis of and publish a report on systems to alleviate the hazards to aviation from birds congregating and feeding on landfills in the vicinity of airports.

(l) COMPLETION OF RESEARCH AND STUDIES.—The Administrator shall complete the research and studies, and submit the reports, required under subsections (b), (c), (d), (e), (f), (g), and (k) not later than October 1, 1978. The Administrator shall complete the research and studies, and submit the reports, required under subsections (a), (h), (i), and (j) not later than October 1, 1979. Upon completion, each study specified in subsections (a) through (k) of this section, the Administrator shall prepare a plan for research, development, and demonstration respecting the findings of the

study and shall submit any legislative recommendations resulting from such study to appropriate committees of Congress.

(m) DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTES ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT, OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.—

(1) The Administrator shall conduct a detailed and comprehensive study and submit a report on the adverse effects, if any, of drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil or natural gas or geothermal energy on human health and the environment, including, but not limited to, the effects of such wastes on humans, water, air, health, welfare, and natural resources and on the adequacy of means and measures currently employed by the oil and gas and geothermal drilling and production industry, Government agencies, and others to dispose of and utilize such wastes and to prevent or substantially mitigate such adverse effects. Such study shall include an analysis of—

(A) the sources and volume of discarded material generated per year from such wastes;

(B) present disposal practices;

(C) potential danger to human health and the environment from the surface runoff or leachate;

(D) documented cases which prove or have caused danger to human health and the environment from surface runoff or leachate;

(E) alternatives to current disposal methods;

(F) the cost of such alternatives; and

(G) the impact of those alternatives on the exploration for, and development and production of, crude oil and natural gas or geothermal energy.

In furtherance of this study, the Administrator shall, as he deems appropriate, review studies and other actions of other Federal agencies concerning such wastes with a view toward avoiding duplication of effort and the need to expedite such study. The Administrator shall publish a report of such study and shall include appropriate findings and recommendations for Federal and non-Federal actions concerning such effects.

(2) The Administrator shall complete the research and study and submit the report required under paragraph (1) not later than twenty-four months from the date of enactment of the Solid Waste Disposal Act Amendments of 1980. Upon completion of the study, the Administrator shall prepare a summary of the findings of the study, a plan for research, development, and demonstration respecting the findings of the study, and shall submit the findings and the study, along with any recommendations resulting from such study, to the Committee on Environment and Public Works of the United States Senate and the Committee on Interstate and Foreign Commerce of the United States House of Representatives.

(3) There are authorized to be appropriated not to exceed \$1,000,000 to carry out the provisions of this subsection.

(n) MATERIALS GENERATED FROM THE COMBUSTION OF COAL AND OTHER FOSSIL FUELS.—The Administrator shall conduct a detailed and comprehensive study and submit a report on the adverse effects on human health and the environment, if any, of the dis-



posal and utilization of fly ash waste, bottom ash waste, slag waste, flue gas emission control waste, and other byproduct materials generated primarily from the combustion of coal or other fossil fuels. Such study shall include an analysis of—

- (1) the source and volumes of such material generated per year;
- (2) present disposal and utilization practices;
- (3) potential danger, if any, to human health and the environment from the disposal and reuse of such materials;
- (4) documented cases in which danger to human health or the environment from surface runoff or leachate has been proved;
- (5) alternatives to current disposal methods;
- (6) the cost of such alternatives;
- (7) the impact of those alternatives on the use of coal and other natural resources; and
- (8) the current and potential utilization of such materials.

In furtherance of this study, the Administrator shall, as he deems appropriate, review studies and other actions of other Federal and State agencies concerning such material and invite participation by other concerned parties, including industry and other Federal and State agencies, with a view toward avoiding duplication of effort. The Administrator shall publish a report on such study, which shall include appropriate findings, not later than twenty-four months after the enactment of the Solid Waste Disposal Act Amendments of 1980. Such study and findings shall be submitted to the Committee on Environment and Public Works of the United States Senate and the Committee on Interstate and Foreign Commerce of the United States House of Representatives.

(o) CEMENT KILN DUST WASTE.—The Administrator shall conduct a detailed and comprehensive study of the adverse effects on human health and the environment, if any, of the disposal of cement kiln dust waste. Such study shall include an analysis of—

- (1) the source and volumes of such materials generated per year;
- (2) present disposal practices;
- (3) potential danger, if any, to human health and the environment from the disposal of such materials;
- (4) documented cases in which danger to human health or the environment has been proved;
- (5) alternatives to current disposal methods;
- (6) the costs of such alternatives;
- (7) the impact of those alternatives on the use of natural resources; and
- (8) the current and potential utilization of such materials.

In furtherance of this study, the Administrator shall, as he deems appropriate, review studies and other actions of other Federal and State agencies concerning such waste or materials and invite participation by other concerned parties, including industry and other Federal and State agencies, with a view toward avoiding duplication of effort. The Administrator shall publish a report of such study, which shall include appropriate findings, not later than thirty-six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1980. Such report shall be submitted to

the Committee on Environment and Public Works of the United States Senate and the Committee on Interstate and Foreign Commerce of the United States House of Representatives.

(p) MATERIALS GENERATED FROM THE EXTRACTION, BENEFICIATION, AND PROCESSING OF ORES AND MINERALS, INCLUDING PHOSPHATE ROCK AND OVERBURDEN FROM URANIUM MINING.—The Administrator shall conduct a detailed and comprehensive study on the adverse effects on human health and the environment, if any, of the disposal and utilization of solid waste from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from uranium mining. Such study shall be conducted in conjunction with the study of mining wastes required by subsection (f) of this section and shall include an analysis of—

- (1) the source and volumes of such materials generated per year;
- (2) present disposal and utilization practices;
- (3) potential danger, if any, to human health and the environment from the disposal and reuse of such materials;
- (4) documented cases in which danger to human health or the environment has been proved;
- (5) alternatives to current disposal methods;
- (6) the costs of such alternatives;
- (7) the impact of those alternatives on the use of phosphate rock and uranium ore, and other natural resources; and
- (8) the current and potential utilization of such materials.

In furtherance of this study, the Administrator shall, as he deems appropriate, review studies and other actions of other Federal and State agencies concerning such waste or materials and invite participation by other concerned parties, including industry and other Federal and State agencies, with a view toward avoiding duplication of effort. The Administrator shall publish a report of such study, which shall include appropriate findings, in conjunction with the publication of the report of the study of mining wastes required to be conducted under subsection (f) of this section. Such report and findings shall be submitted to the Committee on Environment and Public Works of the United States Senate and the Committee on Interstate and Foreign Commerce of the United States House of Representatives.

(q) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated not to exceed \$8,000,000 for the fiscal years 1978 and 1979 to carry out this section other than subsection (j).

(r) MINIMIZATION OF HAZARDOUS WASTE.—The Administrator shall compile, and not later than October 1, 1986, submit to the Congress, a report on the feasibility and desirability of establishing standards of performance or of taking other additional actions under this Act to require the generators of hazardous waste to reduce the volume or quantity and toxicity of the hazardous waste they generate, and of establishing with respect to hazardous wastes required management practices or other requirements to assure such wastes are managed in ways that minimize present and future risks to human health and the environment. Such report shall include any recommendations for legislative changes which the Ad-

ministrator determines are feasible and desirable to implement the national policy established by section 1003.

(s) **EXTENDING LANDFILL LIFE AND REUSING LANDFILLED AREAS.**—The Administrator shall conduct detailed, comprehensive studies of methods to extend the useful life of sanitary landfills and to better use sites in which filled or closed landfills are located. Such studies shall address—

- (1) methods to reduce the volume of materials before placement in landfills;
- (2) more efficient systems for depositing waste in landfills;
- (3) methods to enhance the rate of decomposition of solid waste in landfills, in a safe and environmentally acceptable manner;
- (4) methane production from closed landfill units;
- (5) innovative uses of closed landfill sites, including use for energy production such as solar or wind energy and use for metals recovery;
- (6) potential for use of sewage treatment sludge in reclaiming landfilled areas; and
- (7) methods to coordinate use of a landfill owned by one municipality by nearby municipalities, and to establish equitable rates for such use, taking into account the need to provide future landfill capacity to replace that so used.

The Administrator is authorized to conduct demonstrations in the areas of study provided in this subsection. The Administrator shall periodically report on the results of such studies, with the first such report not later than October 1, 1986. In carrying out this subsection, the Administrator need not duplicate other studies which have been completed and may rely upon information which has previously been compiled.

[42 U.S.C. 6982]

#### COORDINATION, COLLECTION, AND DISSEMINATION OF INFORMATION

**SEC. 8003. (a) INFORMATION.**—The Administrator shall develop, collect, evaluate, and coordinate information on—

- (1) methods and costs of the collection of solid waste;
- (2) solid waste management practices, including data on the different management methods and the cost, operation, and maintenance of such methods;
- (3) the amounts and percentages of resources (including energy) that can be recovered from solid waste by use of various solid waste management practices and various technologies;
- (4) methods available to reduce the amount of solid waste that is generated;
- (5) existing and developing technologies for the recovery of energy or materials from solid waste and the costs, reliability, and risks associated with such technologies;
- (6) hazardous solid waste, including incidents of damage resulting from the disposal of hazardous solid wastes; inherently and potentially hazardous solid wastes; methods of neutralizing or properly disposing of hazardous solid wastes; facilities that properly dispose of hazardous wastes;

(7) methods of financing resource recovery facilities or, sanitary landfills, or hazardous solid waste treatment facilities, whichever is appropriate for the entity developing such facility or landfill (taking into account the amount of solid waste reasonably expected to be available to such entity);

(8) the availability of markets for the purchase of resources, either materials or energy, recovered from solid waste; and

(9) research and development projects respecting solid waste management.

(b) LIBRARY.—(1) The Administrator shall establish and maintain a central reference library for (A) the materials collected pursuant to subsection (a) of this section and (B) the actual performance and cost effectiveness records and other data and information with respect to—

(i) the various methods of energy and resource recovery from solid waste,

(ii) the various systems and means of resource conservation,

(iii) the various systems and technologies for collection, transport, storage, treatment, and final disposition of solid waste, and

(iv) other aspects of solid waste and hazardous solid waste management.

Such central reference library shall also contain, but not be limited to, the model codes and model accounting systems developed under this section, the information collected under subsection (d), and, subject to any applicable requirements of confidentiality, information respecting any aspect of solid waste provided by officers and employees of the Environmental Protection Agency which has been acquired by them in the conduct of their functions under this Act and which may be of value to Federal, State, and local authorities and other persons.

(2) Information in the central reference library shall, to the extent practicable, be collated, analyzed, verified, and published and shall be made available to State and local governments and other persons at reasonable times and subject to such reasonable charges as may be necessary to defray expenses of making such information available.

(c) MODEL ACCOUNTING SYSTEM.—In order to assist State and local governments in determining the cost and revenues associated with the collection and disposal of solid waste and with resource recovery operations, the Administrator shall develop and publish a recommended model cost and revenue accounting system applicable to the solid waste management functions of State and local governments. Such system shall be in accordance with generally accepted accounting principles. The Administrator shall periodically, but not less frequently than once every five years, review such accounting system and revise it as necessary.

(d) MODEL CODES.—The Administrator is authorized, in cooperation with appropriate State and local agencies, to recommend model codes, ordinances, and statutes, providing for sound solid waste management.

(e) INFORMATION PROGRAMS.—(1) The Administrator shall implement a program for the rapid dissemination of information on solid waste management, hazardous waste management, resource conservation, and methods of resource recovery from solid waste, including the results of any relevant research, investigations, experiments, surveys, studies, or other information which may be useful in the implementation of new or improved solid waste management practices and methods and information on any other technical, managerial, financial, or market aspect of resource conservation and recovery facilities.

(2) The Administrator shall develop and implement educational programs to promote citizen understanding of the need for environmentally sound solid waste management practices.

(f) COORDINATION.—In collecting and disseminating information under this section, the Administrator shall coordinate his actions and cooperate to the maximum extent possible with State and local authorities.

(g) SPECIAL RESTRICTION.—Upon request, the full range or alternative technologies, programs or processes deemed feasible to meet the resource recovery or resource conservation needs of a jurisdiction shall be described in such a manner as to provide a sufficient evaluative basis from which the jurisdiction can make its decisions, but no officer or employee of the Environmental Protection Agency shall, in an official capacity, lobby for or otherwise represent an agency position in favor of resource recovery or resource conservation, as a policy alternative for adoption into ordinances, codes, regulations, or law by any State or political subdivision thereof.

[42 U.S.C. 6983]

#### FULL-SCALE DEMONSTRATION FACILITIES

SEC. 8004. (a) AUTHORITY.—The Administrator may enter into contracts with public agencies or authorities or private persons for the construction and operation of a full-scale demonstration facility under this Act, or provide financial assistance in the form of grants to a full-scale demonstration facility under this Act only if the Administrator finds that—

(1) such facility or proposed facility will demonstrate at full scale a new or significantly improved technology or process, a practical and significant improvement in solid waste management practice, or the technological feasibility and cost effectiveness of an existing, but unproven technology, process, or practice, and will not duplicate any other Federal, State, local, or commercial facility which has been constructed or with respect to which construction has begun (determined as of the date action is taken by the Administrator under this Act),

(2) such contract or assistance meets the requirements of section 8001 and meets other applicable requirements of the Act,

(3) such facility will be able to comply with the guidelines published under section 1008 and with other laws and regulations for the protection of health and the environment,



(4) in the case of a contract for construction or operation, such facility is not likely to be constructed or operated by State, local, or private persons or in the case of an application for financial assistance, such facility is not likely to receive adequate financial assistance from other sources, and

(5) any Federal interest in, or assistance to, such facility will be disposed of or terminated, with appropriate compensation, within such period of time as may be necessary to carry out the basic objectives of this Act.

(b) **TIME LIMITATION.**—No obligation may be made by the Administrator for financial assistance under this subtitle for any full-scale demonstration facility after the date ten years after the enactment of this section. No expenditure of funds for any such full-scale demonstration facility under this subtitle may be made by the Administrator after the date fourteen years after such date of enactment.

(c) **COST SHARING.**—(1) Wherever practicable, in constructing, operating, or providing financial assistance under this subtitle to a full-scale demonstration facility, the Administrator shall endeavor to enter into agreements and make other arrangements for maximum practicable cost sharing with other Federal, State, and local agencies, private persons, or any combination thereof.

(2) The Administrator shall enter into arrangements, wherever practicable and desirable, to provide monitoring of full-scale solid waste facilities (whether or not constructed or operated under this Act) for purposes of obtaining information concerning the performance, and other aspects, of such facilities. Where the Administrator provides only monitoring and evaluation instruments or personnel (or both) or funds for such instruments or personnel and provides no other financial assistance to a facility, notwithstanding section 8001(c)(3), title to any invention made or conceived of in the course of developing, constructing, or operating such facility shall not be required to vest in the United States and patents respecting such invention shall not be required to be issued to the United States.

(d) **PROHIBITION.**—After the date of enactment of this section, the Administrator shall not construct or operate any full-scale facility (except by contract with public agencies or authorities or private persons).

[42 U.S.C. 6984]

SPECIAL STUDY AND DEMONSTRATION PROJECTS ON RECOVERY OF  
USEFUL ENERGY AND MATERIALS

SEC. 8005. (a) **STUDIES.**—The Administrator shall conduct studies and develop recommendations for administrative or legislative action on—

(1) means of recovering materials and energy from solid waste, recommended uses of such materials and energy for national or international welfare, including identification of potential markets for such recovered resources, the impact of distribution of such resources on existing markets, and potentials for energy conservation through resource conservation and resource recovery;

(2) actions to reduce waste generation which have been taken voluntarily or in response to governmental action, and those which practically could be taken in the future, and the economic, social, and environmental consequences of such actions;

(3) methods of collection, separation, and containerization which will encourage efficient utilization of facilities and contribute to more effective programs of reduction, reuse, or disposal of wastes;

(4) the use of Federal procurement to develop market demand for recovered resources;

(5) recommended incentives (including Federal grants, loans, and other assistance) and disincentives to accelerate the reclamation or recycling of materials from solid wastes, with special emphasis on motor vehicle hulks;

(6) the effect of existing public policies, including subsidies and economic incentives and disincentives, percentage depletion allowances, capital gains treatment and other tax incentives and disincentives, upon the recycling and reuse of materials, and the likely effect of the modification or elimination of such incentives and disincentives upon the reuse, recycling and conservation of such materials;

(7) the necessity and method of imposing disposal or other charges on packaging, containers, vehicles, and other manufactured goods, which charges would reflect the cost of final disposal, the value of recoverable components of the item, and any social costs associated with nonrecycling or uncontrolled disposal of such items; and

(8) the legal constraints and institutional barriers to the acquisition of land needed for solid waste management, including land for facilities and disposal sites;

(9) in consultation with the Secretary of Agriculture, agricultural waste management problems and practices, the extent of reuse and recovery of resources in such wastes, the prospects for improvement, Federal, State, and local regulations governing such practices, and the economic, social, and environmental consequences of such practices; and

(10) in consultation with the Secretary of the Interior, mining waste management problems, and practices, including an assessment of existing authorities, technologies, and economics, and the environmental and public health consequences of such practices.

(b) DEMONSTRATION.—The Administrator is also authorized to carry out demonstration projects to test and demonstrate methods and techniques developed pursuant to subsection (a).

(c) APPLICATION OF OTHER SECTION.—Section 8001 (b) and (c) shall be applicable to investigations, studies, and projects carried out under this section.

[42 U.S.C. 6985]

## GRANTS FOR RESOURCE RECOVERY SYSTEMS AND IMPROVED SOLID WASTE DISPOSAL FACILITIES

SEC. 8006. (a) **AUTHORITY.**—The Administrator is authorized to make grants pursuant to this section to any State, municipal, or interstate or intermunicipal agency for the demonstration of resource recovery systems or for the construction of new or improved solid waste disposal facilities.

(b) **CONDITIONS.**—(1) Any grant under this section for the demonstration of a resource recovery system may be made only if it (A) is consistent with any plans which meet the requirements of sub-title D of this Act; (B) is consistent with the guidelines recommended pursuant to section 1008 of this Act; (C) is designed to provide areawide resource recovery systems consistent with the purposes of this Act, as determined by the Administrator, pursuant to regulations promulgated under subsection (d) of this section; and (D) provides an equitable system for distributing the costs associated with construction, operation, and maintenance of any resource recovery system among the users of such system.

(2) The Federal share for any project to which paragraph (1) applies shall not be more than 75 percent.

(c) **LIMITATIONS.**—(1) A grant under this section for the construction of a new or improved solid waste disposal facility may be made only if—

(A) a State or interstate plan for solid waste disposal has been adopted which applies to the area involved, and the facility to be constructed (i) is consistent with such plan, (ii) is included in a comprehensive plan for the area involved which is satisfactory to the Administrator for the purposes of this Act, and (iii) is consistent with the guidelines recommended under section 1008, and

(B) the project advances the state of the art by applying new and improved techniques in reducing the environmental impact of solid waste disposal, in achieving recovery of energy or resources, or in recycling useful materials.

(2) The Federal share for any project to which paragraph (1) applies shall be not more than 50 percent in the case of a project serving an area which includes only one municipality, and not more than 75 percent in any other case.

(d) **REGULATIONS.**—(1) The Administrator shall promulgate regulations establishing a procedure for awarding grants under this section which—

(A) provides that projects will be carried out in communities of varying sizes, under such conditions as will assist in solving the community waste problems of urban-industrial centers, metropolitan regions, and rural areas, under representative geographic and environmental conditions; and

(B) provides deadlines for submission of, and action on, grant requests.

(2) In taking action on applications for grants under this section, consideration shall be given by the Administrator (A) to the public benefits to be derived by the construction and the propriety of Federal aid in making such grant; (B) to the extent applicable, to the economic and commercial viability of the project (including

contractual arrangements with the private sector to market any resources recovered); (C) to the potential of such project for general application to community solid waste disposal problems; and (D) to the use by the applicant of comprehensive regional or metropolitan area planning.

(e) **ADDITIONAL LIMITATIONS.**—A grant under this section—

(1) may be made only in the amount of the Federal share of (A) the estimated total design and construction costs, plus (B) in the case of a grant to which subsection (b)(1) applies, the first-year operation and maintenance costs;

(2) may not be provided for land acquisition or (except as otherwise provided in paragraph (1)(B)) for operating or maintenance costs;

(3) may not be made until the applicant has made provision satisfactory to the Administrator for proper and efficient operation and maintenance of the project (subject to paragraph (1)(B)); and

(4) may be made subject to such conditions and requirements, in addition to those provided in this section, as the Administrator may require to properly carry out his functions pursuant to this Act.

For purposes of paragraph (1), the non-Federal share may be in any form, including, but not limited to, lands or interests therein needed for the project or personal property or services, the value of which shall be determined by the Administrator.

(f) **SINGLE STATE.**—(1) Not more than 15 percent of the total of funds authorized to be appropriated for any fiscal year to carry out this section shall be granted under this section for projects in any one State.

(2) The Administrator shall prescribe by regulation the manner in which this subsection shall apply to a grant under this section for a project in an area which includes all or part of more than one State.

【42 U.S.C. 6986】

#### AUTHORIZATION OF APPROPRIATIONS

SEC. 8007. There are authorized to be appropriated not to exceed \$35,000,000 for the fiscal year 1978 to carry out the purposes of this subtitle (except for section 8002).

【42 U.S.C. 6987】

#### Subtitle I—Regulation of Underground Storage Tanks

##### DEFINITIONS AND EXEMPTIONS

SEC. 9001. In this subtitle:

(1) **INDIAN TRIBE.**—

(A) **IN GENERAL.**—The term “Indian tribe” means any Indian tribe, band, nation, or other organized group or community that is recognized as being eligible for special programs and services provided by the United States to Indians because of their status as Indians.

(B) **INCLUSIONS.**—The term “Indian tribe” includes an Alaska Native village, as defined in or established under

the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.); and <sup>43</sup>

(2) The term “nonoperational storage tank” means any underground storage tank in which regulated substances will not be deposited or from which regulated substances will not be dispensed after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984.

(3) The term “operator” means any person in control of, or having responsibility for, the daily operation of the underground storage tank.

(4) The term “owner” means—

(A) in the case of an underground storage tank in use on the date of enactment of the Hazardous and Solid Waste Amendments of 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and

(B) in the case of any underground storage tank in use before the date of enactment of the Hazardous and Solid Waste Amendments of 1984, but no longer in use on the date of enactment of such Amendments, any person who owned such tank immediately before the discontinuation of its use.

(5) The term “person” has the same meaning as provided in section 1004(15), except that such term includes a consortium, a joint venture, and a commercial entity, and the United States Government.

(6) The term “petroleum” means petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

(7) The term “regulated substance” means—

(A) any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under subtitle C), and

(B) petroleum.

(8) The term “release” means any spilling, leaking, emitting, discharging, escaping, leaching, or disposing from an underground storage tank into ground water, surface water or subsurface soils.

(9) TRUST FUND.—The term “Trust Fund” means the Leaking Underground Storage Tank Trust Fund established by section 9508 of the Internal Revenue Code of 1986.

(10) The term “underground storage tank” means any one or combination of tanks (including underground pipes connected thereto) which is used to contain an accumulation of regulated substances, and the volume of which (including the volume of the underground pipes connected thereto) is 10 per centum or more beneath the surface of the ground. Such term does not include any—

<sup>43</sup> So in law. The semicolon and the word “and” at the end of paragraph (1) probably should be a period.



(A) farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes,

(B) tank used for storing heating oil for consumptive use on the premises where stored,

(C) septic tank,

(D) pipeline facility (including gathering lines)—

(i) which is regulated under chapter 601 of title 49, United States Code, or

(ii) which is an intrastate pipeline facility regulated under State laws as provided in chapter 601 of title 49, United States Code,

and which is determined by the Secretary to be connected to a pipeline or to be operated or intended to be capable of operating at pipeline pressure or as an integral part of a pipeline,

(E) surface impoundment, pit, pond, or lagoon,

(F) storm water or waste water collection system,

(G) flow-through process tank,

(H) liquid trap or associated gathering lines directly related to oil or gas production and gathering operations, or

(I) storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

The term “underground storage tank” shall not include any pipes connected to any tank which is described in subparagraphs (A) through (I).

[42 U.S.C. 6991]

#### NOTIFICATION

SEC. 9002. (a) UNDERGROUND STORAGE TANKS.—(1) Within 18 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, each owner of an underground storage tank shall notify the State or local agency or department designated pursuant to subsection (b)(1) of the existence of such tank, specifying the age, size, type, location, and uses of such tank.

(2)(A) For each underground storage tank taken out of operation after January 1, 1974, the owner of such tank shall, within eighteen months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, notify the State or local agency, or department designated pursuant to subsection (b)(1) of the existence of such tanks (unless the owner knows the tank subsequently was removed from the ground). The owner of a tank taken out of operation on or before January 1, 1974, shall not be required to notify the State or local agency under this subsection.

(B) Notice under subparagraph (A) shall specify, to the extent known to the owner—

(i) the date the tank was taken out of operation,

(ii) the age of the tank on the date taken out of operation,

(iii) the size, type and location of the tank, and

(iv) the type and quantity of substances left stored in such tank on the date taken out of operation.

(3) Any owner which brings into use an underground storage tank after the initial notification period specified under paragraph (1), shall notify the designated State or local agency or department within thirty days of the existence of such tank, specifying the age, size, type, location and uses of such tank.

(4) Paragraphs (1) through (3) of this subsection shall not apply to tanks for which notice was given pursuant to section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

(5) Beginning thirty days after the Administrator prescribes the form of notice pursuant to subsection (b)(2) and for eighteen months thereafter, any person who deposits regulated substances in an underground storage tank shall reasonably notify the owner or operator of such tank of the owner's notification requirements pursuant to this subsection.

(6) Beginning thirty days after the Administrator issues new tank performance standards pursuant to section 9003(e) of this subtitle, any person who sells a tank intended to be used as an underground storage tank shall notify the purchaser of such tank of the owner's notification requirements pursuant to this subsection.

(b) AGENCY DESIGNATION.—(1) Within one hundred and eighty days after the enactment of the Hazardous and Solid Waste Amendments of 1984, the Governors of each State shall designate the appropriate State agency or department or local agencies or departments to receive the notifications under subsection (a)(1), (2), or (3).

(2) Within twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator, in consultation with State and local officials designated pursuant to subsection (b)(1), and after notice and opportunity for public comment, shall prescribe the form of the notice and the information to be included in the notifications under subsection (a)(1), (2), or (3). In prescribing the form of such notice, the Administrator shall take into account the effect on small businesses and other owners and operators.

(c) STATE INVENTORIES.—Each State shall make 2 separate inventories of all underground storage tanks in such State containing regulated substances. One inventory shall be made with respect to petroleum and one with respect to other regulated substances. In making such inventories, the State shall utilize and aggregate the data in the notification forms submitted pursuant to subsections (a) and (b) of this section. Each State shall submit such aggregated data to the Administrator not later than 270 days after the enactment of the Superfund Amendments and Reauthorization Act of 1986.

(d) PUBLIC RECORD.—

(1) IN GENERAL.—The Administrator shall require each State that receives Federal funds to carry out this subtitle to maintain, update at least annually, and make available to the public, in such manner and form as the Administrator shall prescribe (after consultation with States), a record of underground storage tanks regulated under this subtitle.

(2) CONSIDERATIONS.—To the maximum extent practicable, the public record of a State, respectively, shall include, for each year—

(A) the number, sources, and causes of underground storage tank releases in the State;

(B) the record of compliance by underground storage tanks in the State with—

(i) this subtitle; or

(ii) an applicable State program approved under section 9004; and

(C) data on the number of underground storage tank equipment failures in the State.

[42 U.S.C. 6991a]

#### RELEASE DETECTION, PREVENTION, AND CORRECTION REGULATIONS

SEC. 9003. (a) REGULATIONS.—The Administrator, after notice and opportunity for public comment, and at least three months before the effective dates specified in subsection (f), shall promulgate release detection, prevention, and correction regulations applicable to all owners and operators of underground storage tanks, as may be necessary to protect human health and the environment.

(b) DISTINCTIONS IN REGULATIONS.—In promulgating regulations under this section, the Administrator may distinguish between types, classes, and ages of underground storage tanks. In making such distinctions, the Administrator may take into consideration factors, including, but not limited to: location of the tanks, soil and climate conditions, uses of the tanks, history of maintenance, age of the tanks, current industry recommended practices, national consensus codes, hydrogeology, water table, size of the tanks, quantity of regulated substances periodically deposited in or dispensed from the tank, the technical capability of the owners and operators, and the compatibility of the regulated substance and the materials of which the tank is fabricated.

(c) REQUIREMENTS.—The regulations promulgated pursuant to this section shall include, but need not be limited to, the following requirements respecting all underground storage tanks—

(1) requirements for maintaining a leak detection system, an inventory control system together with tank testing, or a comparable system or method designed to identify releases in a manner consistent with the protection of human health and the environment;

(2) requirements for maintaining records of any monitoring or leak detection system or inventory control system or tank testing or comparable system;

(3) requirements for reporting of releases and corrective action taken in response to a release from an underground storage tank;

(4) requirements for taking corrective action in response to a release from an underground storage tank;

(5) requirements for the closure of tanks to prevent future releases of regulated substances into the environment; and

(6) requirements for maintaining evidence for financial responsibility for taking corrective action and compensating third

parties for bodily injury and property damage caused by sudden and nonsudden accidental releases arising from operating an underground storage tank.

(d) FINANCIAL RESPONSIBILITY.—(1) Financial responsibility required by this subsection may be established in accordance with regulations promulgated by the Administrator by any one, or any combination, of the following: insurance, guarantee, surety bond, letter of credit, qualification as a self-insurer. In promulgating requirements under this subsection, the Administrator is authorized to specify policy or other contractual terms, conditions, or defenses which are necessary or are unacceptable in establishing such evidence of financial responsibility in order to effectuate the purposes of this subtitle or any other method satisfactory to the Administrator.

(2) In any case where the owner or operator is in bankruptcy, reorganization, or arrangement pursuant to the Federal Bankruptcy Code or where with reasonable diligence jurisdiction in any State court of the Federal Courts cannot be obtained over an owner or operator likely to be solvent at the time of judgment, any claim arising from conduct for which evidence of financial responsibility must be provided under this subsection may be asserted directly against the guarantor providing such evidence of financial responsibility. In the case of any action pursuant to this paragraph such guarantor shall be entitled to invoke all rights and defenses which would have been available to the owner or operator if any action had been brought against the owner or operator by the claimant and which would have been available to the guarantor if an action had been brought against the guarantor by the owner or operator.

(3) The total liability of any guarantor shall be limited to the aggregate amount which the guarantor has provided as evidence of financial responsibility to the owner or operator under this section. Nothing in this subsection shall be construed to limit any other State or Federal statutory, contractual or common law liability of a guarantor to its owner or operator including, but not limited to, the liability of such guarantor for bad faith either in negotiating or in failing to negotiate the settlement of any claim. Nothing in this subsection shall be construed to diminish the liability of any person under section 107 or 111 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 or other applicable law.

(4) For the purpose of this subsection, the term “guarantor” means any person, other than the owner or operator, who provides evidence of financial responsibility for an owner or operator under this subsection.

(5)(A) The Administrator, in promulgating financial responsibility regulations under this section, may establish an amount of coverage for particular classes or categories of underground storage tanks containing petroleum which shall satisfy such regulations and which shall not be less than \$1,000,000 for each occurrence with an appropriate aggregate requirement.

(B) The Administrator may set amounts lower than the amounts required by subparagraph (A) of this paragraph for underground storage tanks containing petroleum which are at facilities

not engaged in petroleum production, refining, or marketing and which are not used to handle substantial quantities of petroleum.

(C) In establishing classes and categories for purposes of this paragraph, the Administrator may consider the following factors:

(i) The size, type, location, storage, and handling capacity of underground storage tanks in the class or category and the volume of petroleum handled by such tanks.

(ii) The likelihood of release and the potential extent of damage from any release from underground storage tanks in the class or category.

(iii) The economic impact of the limits on the owners and operators of each such class or category, particularly relating to the small business segment of the petroleum marketing industry.

(iv) The availability of methods of financial responsibility in amounts greater than the amount established by this paragraph.

(v) Such other factors as the Administrator deems pertinent.

(D) The Administrator may suspend enforcement of the financial responsibility requirements for a particular class or category of underground storage tanks or in a particular State, if the Administrator makes a determination that methods of financial responsibility satisfying the requirements of this subsection are not generally available for underground storage tanks in that class or category; and—

(i) steps are being taken to form a risk retention group for such class of tanks; or

(ii) such State is taking steps to establish a fund pursuant to section 9004(c)(1) of this Act to be submitted as evidence of financial responsibility.

A suspension by the Administrator pursuant to this paragraph shall extend for a period not to exceed 180 days. A determination to suspend may be made with respect to the same class or category or for the same State at the end of such period, but only if substantial progress has been made in establishing a risk retention group, or the owners or operators in the class or category demonstrate, and the Administrator finds, that the formation of such a group is not possible and that the State is unable or unwilling to establish such a fund pursuant to clause (ii).

(e) NEW TANK PERFORMANCE STANDARDS.—The Administrator shall, not later than three months prior to the effective date specified in subsection (f), issue performance standards for underground storage tanks brought into use on or after the effective date of such standards. The performance standards for new underground storage tanks shall include, but need not be limited to, design, construction, installation, release detection, and compatibility standards.

(f) EFFECTIVE DATES.—(1) Regulations issued pursuant to subsections (c) and (d), and standards issued pursuant to subsection (e) of this section, for underground storage tanks containing regulated substances defined in section 9001(7)(B) (petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure) shall be effective not later than



thirty months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

(2) Standards issued pursuant to subsection (e) of this section (entitled "New Tank Performance Standards") for underground storage tanks containing regulated substances defined in section 9001(7)(A) shall be effective not later than thirty-six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

(3) Regulations issued pursuant to subsection (c) of this section (entitled "Requirements") and standards issued pursuant to subsection (d) of this section (entitled "Financial Responsibility") for underground storage tanks containing regulated substances defined in section 9001(7)(A) shall be effective not later than forty-eight months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

(g) INTERIM PROHIBITION.—(1) Until the effective date of the standards promulgated by the Administrator under subsection (e) and after one hundred and eighty days after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, no person may install an underground storage tank for the purpose of storing regulated substances unless such tank (whether of single or double wall construction)—

(A) will prevent releases due to corrosion or structural failure for the operational life of the tank;

(B) is cathodically protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed in a manner to prevent the release or threatened release of any stored substance; and

(C) the material used in the construction or lining of the tank is compatible with the substance to be stored.

(2) Notwithstanding paragraph (1), if soil tests conducted in accordance with ASTM Standard G57–78, or another standard approved by the Administrator, show that soil resistivity in an installation location is 12,000 ohm/cm or more (unless a more stringent standard is prescribed by the Administrator by rule), a storage tank without corrosion protection may be installed in that location during the period referred to in paragraph (1).

(h) EPA RESPONSE PROGRAM FOR PETROLEUM.—

(1) BEFORE REGULATIONS.—Before the effective date of regulations under subsection (c), the Administrator (or a State pursuant to paragraph (7)) is authorized to—

(A) require the owner or operator of an underground storage tank to undertake corrective action with respect to any release of petroleum when the Administrator (or the State) determines that such corrective action will be done properly and promptly by the owner or operator of the underground storage tank from which the release occurs; or

(B) undertake corrective action with respect to any release of petroleum into the environment from an underground storage tank if such action is necessary, in the judgment of the Administrator (or the State), to protect human health and the environment.

The corrective action undertaken or required by this paragraph shall be such as may be necessary to protect human health and

the environment. The Administrator shall use funds in the Trust Fund for payment of costs incurred for corrective action under subparagraph (B), enforcement action under subparagraph (A), and cost recovery under paragraph (6) of this subsection. Subject to the priority requirements of paragraph (3), the Administrator (or the State) shall give priority in undertaking such actions under subparagraph (B) to cases where the Administrator (or the State) cannot identify a solvent owner or operator of the tank who will undertake action properly.

(2) AFTER REGULATIONS.—Following the effective date of regulations under subsection (c), all actions or orders of the Administrator (or a State pursuant to paragraph (7)) described in paragraph (1) of this subsection shall be in conformity with such regulations. Following such effective date, the Administrator (or the State) may undertake corrective action with respect to any release of petroleum into the environment from an underground storage tank only if such action is necessary, in the judgment of the Administrator (or the State), to protect human health and the environment and one or more of the following situations exists:

(A) No person can be found, within 90 days or such shorter period as may be necessary to protect human health and the environment, who is—

(i) an owner or operator of the tank concerned,

(ii) subject to such corrective action regulations,

and

(iii) capable of carrying out such corrective action properly.

(B) A situation exists which requires prompt action by the Administrator (or the State) under this paragraph to protect human health and the environment.

(C) Corrective action costs at a facility exceed the amount of coverage required by the Administrator pursuant to the provisions of subsections (c) and (d)(5) of this section and, considering the class or category of underground storage tank from which the release occurred, expenditures from the Trust Fund are necessary to assure an effective corrective action.

(D) The owner or operator of the tank has failed or refused to comply with an order of the Administrator under this subsection or section 9006 or with the order of a State under this subsection to comply with the corrective action regulations.

(3) PRIORITY OF CORRECTIVE ACTIONS.—The Administrator (or a State pursuant to paragraph (7)) shall give priority in undertaking corrective actions under this subsection, and in issuing orders requiring owners or operators to undertake such actions, to releases of petroleum from underground storage tanks which pose the greatest threat to human health and the environment.

(4) CORRECTIVE ACTION ORDERS.—The Administrator is authorized to issue orders to the owner or operator of an underground storage tank to carry out subparagraph (A) of paragraph (1) or to carry out regulations issued under subsection

(c)(4). A State acting pursuant to paragraph (7) of this subsection is authorized to carry out subparagraph (A) of paragraph (1) only until the State's program is approved by the Administrator under section 9004 of this subtitle. Such orders shall be issued and enforced in the same manner and subject to the same requirements as orders under section 9006.

(5) ALLOWABLE CORRECTIVE ACTIONS.—The corrective actions undertaken by the Administrator (or a State pursuant to paragraph (7)) under paragraph (1) or (2) may include temporary or permanent relocation of residents and alternative household water supplies. In connection with the performance of any corrective action under paragraph (1) or (2), the Administrator may undertake an exposure assessment as defined in paragraph (10) of this subsection or provide for such an assessment in a cooperative agreement with a State pursuant to paragraph (7) of this subsection. The costs of any such assessment may be treated as corrective action for purposes of paragraph (6), relating to cost recovery.

(6) RECOVERY OF COSTS.—

(A) IN GENERAL.—Whenever costs have been incurred by the Administrator, or by a State pursuant to paragraph (7), for undertaking corrective action or enforcement action with respect to the release of petroleum from an underground storage tank, the owner or operator of such tank shall be liable to the Administrator or the State for such costs. The liability under this paragraph shall be construed to be the standard of liability which obtains under section 311 of the Federal Water Pollution Control Act.

(B) RECOVERY.—In determining the equities for seeking the recovery of costs under subparagraph (A), the Administrator (or a State pursuant to paragraph (7) of this subsection) may consider the amount of financial responsibility required to be maintained under subsections (c) and (d)(5) of this section and the factors considered in establishing such amount under subsection (d)(5).

(C) EFFECT ON LIABILITY.—

(i) NO TRANSFERS OF LIABILITY.—No indemnification, hold harmless, or similar agreement or conveyance shall be effective to transfer from the owner or operator of any underground storage tank or from any person who may be liable for a release or threat of release under this subsection, to any other person the liability imposed under this subsection. Nothing in this subsection shall bar any agreement to insure, hold harmless, or indemnify a party to such agreement for any liability under this section.

(ii) NO BAR TO CAUSE OF ACTION.—Nothing in this subsection, including the provisions of clause (i) of this subparagraph, shall bar a cause of action that an owner or operator or any other person subject to liability under this section, or a guarantor, has or would have, by reason of subrogation or otherwise against any person.

(D) FACILITY.—For purposes of this paragraph, the term “facility” means, with respect to any owner or operator, all underground storage tanks used for the storage of petroleum which are owned or operated by such owner or operator and located on a single parcel of property (or on any contiguous or adjacent property).

(E) INABILITY OR LIMITED ABILITY TO PAY.—

(i) IN GENERAL.—In determining the level of recovery effort, or amount that should be recovered, the Administrator (or the State pursuant to paragraph (7)) shall consider the owner or operator’s ability to pay. An inability or limited ability to pay corrective action costs must be demonstrated to the Administrator (or the State pursuant to paragraph (7)) by the owner or operator.

(ii) CONSIDERATIONS.—In determining whether or not a demonstration is made under clause (i), the Administrator (or the State pursuant to paragraph (7)) shall take into consideration the ability of the owner or operator to pay corrective action costs and still maintain its basic business operations, including consideration of the overall financial condition of the owner or operator and demonstrable constraints on the ability of the owner or operator to raise revenues.

(iii) INFORMATION.—An owner or operator requesting consideration under this subparagraph shall promptly provide the Administrator (or the State pursuant to paragraph (7)) with all relevant information needed to determine the ability of the owner or operator to pay corrective action costs.

(iv) ALTERNATIVE PAYMENT METHODS.—The Administrator (or the State pursuant to paragraph (7)) shall consider alternative payment methods as may be necessary or appropriate if the Administrator (or the State pursuant to paragraph (7)) determines that an owner or operator cannot pay all or a portion of the costs in a lump sum payment.

(v) MISREPRESENTATION.—If an owner or operator provides false information or otherwise misrepresents their financial situation under clause (ii), the Administrator (or the State pursuant to paragraph (7)) shall seek full recovery of the costs of all such actions pursuant to the provisions of subparagraph (A) without consideration of the factors in subparagraph (B).

(7) STATE AUTHORITIES.—

(A) GENERAL.—A State may exercise the authorities in paragraphs (1), (2), and (12), subject to the terms and conditions of paragraphs (3), (5), (9), (10), and (11), and the authority under sections 9011 and 9012 and paragraphs (4), (6), and (8), if—

(i) the Administrator determines that the State has the capabilities to carry out effective corrective actions and enforcement activities; and

(ii) the Administrator enters into a cooperative agreement with the State setting out the actions to be undertaken by the State.

The Administrator may provide funds from the Trust Fund for the reasonable costs of the State's actions under the cooperative agreement.

(B) COST SHARE.—Following the effective date of the regulations under subsection (c) of this section, the State shall pay 10 per centum of the cost of corrective actions undertaken either by the Administrator or by the State under a cooperative agreement, except that the Administrator may take corrective action at a facility where immediate action is necessary to respond to an imminent and substantial endangerment to human health or the environment if the State fails to pay the cost share.

(8) EMERGENCY PROCUREMENT POWERS.—Notwithstanding any other provision of law, the Administrator may authorize the use of such emergency procurement powers as he deems necessary.

(9) DEFINITION OF OWNER OR OPERATOR.—

(A) IN GENERAL.—As used in this subtitle, the terms “owner” and “operator” do not include a person that, without participating in the management of an underground storage tank and otherwise not engaged in petroleum production, refining, or marketing, holds indicia of ownership primarily to protect the person's security interest.

(B) SECURITY INTEREST HOLDERS.—The provisions regarding holders of security interests in subparagraphs (E) through (G) of section 101(20) and the provisions regarding fiduciaries at section 107(n) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 shall apply in determining a person's liability as an owner or operator of an underground storage tank for the purposes of this subtitle.

(C) EFFECT ON RULE.—Nothing in subparagraph (B) shall be construed as modifying or affecting the final rule issued by the Administrator on September 7, 1995 (60 Fed. Reg. 46,692), or as limiting the authority of the Administrator to amend the final rule, in accordance with applicable law. The final rule in effect on the date of enactment of this subparagraph shall prevail over any inconsistent provision regarding holders of security interests in subparagraphs (E) through (G) of section 101(20) or any inconsistent provision regarding fiduciaries in section 107(n) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Any amendment to the final rule shall be consistent with the provisions regarding holders of security interests in subparagraphs (E) through (G) of section 101(20) and the provisions regarding fiduciaries in section 107(n) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. This subparagraph does not preclude judicial review of any amendment of the final rule made after the date of enactment of this subparagraph.



(10) DEFINITION OF EXPOSURE ASSESSMENT.—As used in this subsection, the term “exposure assessment” means an assessment to determine the extent of exposure of, or potential for exposure of, individuals to petroleum from a release from an underground storage tank based on such factors as the nature and extent of contamination and the existence of or potential for pathways of human exposure (including ground or surface water contamination, air emissions, and food chain contamination), the size of the community within the likely pathways of exposure, and the comparison of expected human exposure levels to the short-term and long-term health effects associated with identified contaminants and any available recommended exposure or tolerance limits for such contaminants. Such assessment shall not delay corrective action to abate immediate hazards or reduce exposure.

(11) FACILITIES WITHOUT FINANCIAL RESPONSIBILITY.—At any facility where the owner or operator has failed to maintain evidence of financial responsibility in amounts at least equal to the amounts established by subsection (d)(5)(A) of this section (or a lesser amount if such amount is applicable to such facility as a result of subsection (d)(5)(B) of this section) for whatever reason the Administrator shall expend no monies from the Trust Fund to clean up releases at such facility pursuant to the provisions of paragraph (1) or (2) of this subsection. At such facilities the Administrator shall use the authorities provided in subparagraph (A) of paragraph (1) and paragraph (4) of this subsection and section 9006 of this subtitle to order corrective action to clean up such releases. States acting pursuant to paragraph (7) of this subsection shall use the authorities provided in subparagraph (A) of paragraph (1) and paragraph (4) of this subsection to order corrective action to clean up such releases. Notwithstanding the provisions of this paragraph, the Administrator may use monies from the fund to take the corrective actions authorized by paragraph (5) of this subsection to protect human health at such facilities and shall seek full recovery of the costs of all such actions pursuant to the provisions of paragraph (6)(A) of this subsection and without consideration of the factors in paragraph (6)(B) of this subsection. Nothing in this paragraph shall prevent the Administrator (or a State pursuant to paragraph (7) of this subsection) from taking corrective action at a facility where there is no solvent owner or operator or where immediate action is necessary to respond to an imminent and substantial endangerment of human health or the environment.

(12) REMEDIATION OF OXYGENATED FUEL CONTAMINATION.—

(A) IN GENERAL.—The Administrator and the States may use funds made available under section 9014(2)(B) to carry out corrective actions with respect to a release of a fuel containing an oxygenated fuel additive that presents a threat to human health or welfare or the environment.

(B) APPLICABLE AUTHORITY.—The Administrator or a State shall carry out subparagraph (A) in accordance with paragraph (2), and in the case of a State, in accordance

with a cooperative agreement entered into by the Administrator and the State under paragraph (7).

(i) <sup>44</sup> **ADDITIONAL MEASURES TO PROTECT GROUNDWATER FROM CONTAMINATION.**—The Administrator shall require each State that receives funding under this subtitle to require one of the following:

(1) **TANK AND PIPING SECONDARY CONTAINMENT.**—(A) Each new underground storage tank, or piping connected to any such new tank, installed after the effective date of this subsection, or any existing underground storage tank, or existing piping connected to such existing tank, that is replaced after the effective date of this subsection, shall be secondarily contained and monitored for leaks if the new or replaced underground storage tank or piping is within 1,000 feet of any existing community water system or any existing potable drinking water well.

(B) In the case of a new underground storage tank system consisting of one or more underground storage tanks and connected by piping, subparagraph (A) shall apply to all underground storage tanks and connected pipes comprising such system.

(C) In the case of a replacement of an existing underground storage tank or existing piping connected to the underground storage tank, subparagraph (A) shall apply only to the specific underground storage tank or piping being replaced, not to other underground storage tanks and connected pipes comprising such system.

(D) Each installation of a new motor fuel dispenser system, after the effective date of this subsection, shall include underdispenser spill containment if the new dispenser is within 1,000 feet of any existing community water system or any existing potable drinking water well.

(E) This paragraph shall not apply to repairs to an underground storage tank, piping, or dispenser that are meant to restore a tank, pipe, or dispenser to operating condition.

(F) As used in this subsection:

(i) The term “secondarily contained” means a release detection and prevention system that meets the requirements of 40 CFR 280.43(g), but shall not include underdispenser spill containment or control systems.

(ii) The term “underground storage tank” has the meaning given to it in section 9001, except that such term does not include tank combinations or more than a single underground pipe connected to a tank.

(iii) The term “installation of a new motor fuel dispenser system” means the installation of a new motor fuel

<sup>44</sup> Subsections (b) and (c) of section 1530 of Public Law 109–58 provide:

(b) [42 U.S.C. 6991b note] **EFFECTIVE DATE.**—This subsection shall take effect 18 months after the date of enactment [Aug. 8, 2005] of this subsection.

(c) [42 U.S.C. 6991b note] **PROMULGATION OF REGULATIONS OR GUIDELINES.**—The Administrator shall issue regulations or guidelines implementing the requirements of this subsection, including guidance to differentiate between the terms “repair” and “replace” for the purposes of section 9003(i)(1) of the Solid Waste Disposal Act.

The reference to “This subsection” in subsection (b) probably should be a reference to “The amendment made by subsection (a)”. The reference in subsection (c) to “this subsection” probably should refer to “subsection (i) of section 9003 of the Solid Waste Disposal Act”.

dispenser and the equipment necessary to connect the dispenser to the underground storage tank system, but does not mean the installation of a motor fuel dispenser installed separately from the equipment need to connect the dispenser to the underground storage tank system.

(2) EVIDENCE OF FINANCIAL RESPONSIBILITY AND CERTIFICATION.—

(A) MANUFACTURER AND INSTALLER FINANCIAL RESPONSIBILITY.—A person that manufactures an underground storage tank or piping for an underground storage tank system or that installs an underground storage tank system is required to maintain evidence of financial responsibility under section 9003(d) in order to provide for the costs of corrective actions directly related to releases caused by improper manufacture or installation unless the person can demonstrate themselves to be already covered as an owner or operator of an underground storage tank under section 9003.

(B) INSTALLER CERTIFICATION.—The Administrator and each State that receives funding under this subtitle, as appropriate, shall require that a person that installs an underground storage tank system is—

(i) certified or licensed by the tank and piping manufacturer;

(ii) certified or licensed by the Administrator or a State, as appropriate;

(iii) has their underground storage tank system installation certified by a registered professional engineer with education and experience in underground storage tank system installation;

(iv) has had their installation of the underground storage tank inspected and approved by the Administrator or the State, as appropriate;

(v) compliant with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions; or

(vi) compliant with another method that is determined by the Administrator or a State, as appropriate, to be no less protective of human health and the environment.

(C) SAVINGS CLAUSE.—Nothing in subparagraph (A) alters or affects the liability of any owner or operator of an underground storage tank.

(j) GOVERNMENT-OWNED TANKS.—

(1) STATE COMPLIANCE REPORT.—(A) Not later than 2 years after the date of enactment of this subsection, each State that receives funding under this subtitle shall submit to the Administrator a State compliance report that—

(i) lists the location and owner of each underground storage tank described in subparagraph (B) in the State that, as of the date of submission of the report, is not in compliance with section 9003; and

(ii) specifies the date of the last inspection and describes the actions that have been and will be taken to ensure compliance of the underground storage tank listed under clause (i) with this subtitle.

(B) An underground storage tank described in this subparagraph is an underground storage tank that is—

(i) regulated under this subtitle; and

(ii) owned or operated by the Federal, State, or local government.

(C) The Administrator shall make each report, received under subparagraph (A), available to the public through an appropriate media.

(2) FINANCIAL INCENTIVE.—The Administrator may award to a State that develops a report described in paragraph (1), in addition to any other funds that the State is entitled to receive under this subtitle, not more than \$50,000, to be used to carry out the report.

(3) NOT A SAFE HARBOR.—This subsection does not relieve any person from any obligation or requirement under this subtitle.

[42 U.S.C. 6991b]

#### APPROVAL OF STATE PROGRAMS

SEC. 9004. (a) ELEMENTS OF STATE PROGRAM.—Beginning 30 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, any State may, submit an underground storage tank release detection, prevention, and correction program for review and approval by the Administrator. The program may cover tanks used to store regulated substances referred to in subparagraph (A) or (B) of section 9001(7). A State program may be approved by the Administrator under this section only if the State demonstrates that the State program includes the following requirements and standards and provides for adequate enforcement of compliance with such requirements and standards—

(1) requirements for maintaining a leak detection system, an inventory control system together with tank testing, or a comparable system or method designed to identify releases in a manner consistent with the protection of human health and the environment;

(2) requirements for maintaining records of any monitoring or leak detection system or inventory control system or tank testing system;

(3) requirements for reporting of any releases and corrective action taken in response to a release from an underground storage tank;

(4) requirements for taking corrective action in response to a release from an underground storage tank;

(5) requirements for the closure of tanks to prevent future releases of regulated substances into the environment;

(6) requirements for maintaining evidence of financial responsibility for taking corrective action and compensating third parties for bodily injury and property damage caused by sud-

den and nonsudden accidental releases arising from operating an underground storage tank;

(7) standards of performance for new underground storage tanks;

(8) requirements—

(A) for notifying the appropriate State agency or department (or local agency or department) designated according to section 9002(b)(1) of the existence of any operational or non-operational underground storage tank; and

(B) for providing the information required on the form issued pursuant to section 9002(b)(2); and

(9) State-specific training requirements as required by section 9010.

(b) **FEDERAL STANDARDS.**—(1) A State program submitted under this section may be approved only if the requirements under paragraphs (1) through (7) of subsection (a) are no less stringent than the corresponding requirements standards promulgated by the Administrator pursuant to section 9003(a).

(2)(A) A State program may be approved without regard to whether or not the requirements referred to in paragraphs (1), (2), (3), and (5) of subsection (a) are less stringent than the corresponding standards under section 9003(a) during the one-year period commencing on the date of promulgation of regulations under section 9003(a) if State regulatory action but no State legislative action is required in order to adopt a State program.

(B) If such State legislative action is required, the State program may be approved without regard to whether or not the requirements referred to in paragraphs (1), (2), (3), and (5) of subsection (a) are less stringent than the corresponding standards under section 9003(a) during the two-year period commencing on the date of promulgation of regulations under section 9003(a) (and during an additional one-year period after such legislative action if regulations are required to be promulgated by the State pursuant to such legislative action).

(c) **FINANCIAL RESPONSIBILITY.**—(1) Corrective action and compensation programs administered by State or local agencies or departments may be submitted for approval under subsection (a)(6) as evidence of financial responsibility.

(2) Financial responsibility required by this subsection may be established in accordance with regulations promulgated by the Administrator by any one, or any combination, of the following: insurance, guarantee, surety bond, letter of credit, qualification as a self-insurer. In promulgating requirements under this subsection, the Administrator is authorized to specify policy or other contractual terms including the amount of coverage required for various classes and categories of underground storage tanks pursuant to section 9003(d)(5), conditions, or defenses which are necessary or are unacceptable in establishing such evidence of financial responsibility in order to effectuate the purposes of this subtitle.

(3) In any case where the owner or operator is in bankruptcy, reorganization, or arrangement pursuant to the Federal Bankruptcy Code or where with reasonable diligence jurisdiction in any State court of the Federal courts cannot be obtained over an owner or operator likely to be solvent at the time of judgment, any claim



arising from conduct for which evidence of financial responsibility must be provided under this subsection may be asserted directly against the guarantor providing such evidence of financial responsibility. In the case of any action pursuant to this paragraph such guarantor shall be entitled to invoke all rights and defenses which would have been available to the owner or operator if any action had been brought against the owner or operator by the claimant and which would have been available to the guarantor if an action had been brought against the guarantor by the owner or operator.

(4) The total liability of any guarantor shall be limited to the aggregate amount which the guarantor has provided as evidence of financial responsibility to the owner or operator under this section. Nothing in this subsection shall be construed to limit any other State or Federal statutory, contractual or common law liability of a guarantor to its owner or operator including, but not limited to, the liability of such guarantor for bad faith either in negotiating or in failing to negotiate the settlement of any claim. Nothing in this subsection shall be construed to diminish the liability of any person under section 107 or 111 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 or other applicable law.

(5) For the purpose of this subsection, the term "guarantor" means any person, other than the owner or operator, who provides evidence of financial responsibility for an owner or operator under this subsection.

(6) WITHDRAWAL OF APPROVAL.—After an opportunity for good faith, collaborative efforts to correct financial deficiencies with a State fund, the Administrator may withdraw approval of any State fund or State assurance program to be used as a financial responsibility mechanism without withdrawing approval of a State underground storage tank program under section 9004(a).

(d) EPA DETERMINATION.—(1) Within one hundred and eighty days of the date of receipt of a proposed State program, the Administrator shall, after notice and opportunity for public comment, make a determination whether the State's program complies with the provisions of this section and provides for adequate enforcement of compliance with the requirements and standards adopted pursuant to this section.

(2) If the Administrator determines that a State program complies with the provisions of this section and provides for adequate enforcement of compliance with the requirements and standards adopted pursuant to this section, he shall approve the State program in lieu of the Federal program and the State shall have primary enforcement responsibility with respect to requirements of its program.

(e) WITHDRAWAL OF AUTHORIZATION.—Whenever the Administrator determines after public hearing that a State is not administering and enforcing a program authorized under this subtitle in accordance with the provisions of this section, he shall so notify the State. If appropriate action is not taken within a reasonable time, not to exceed one hundred and twenty days after such notification, the Administrator shall withdraw approval of such program and re-establish the Federal program pursuant to this subtitle.

## (f) TRUST FUND DISTRIBUTION.—

## (1) IN GENERAL.—

## (A) AMOUNT AND PERMITTED USES OF DISTRIBUTION.—

The Administrator shall distribute to States not less than 80 percent of the funds from the Trust Fund that are made available to the Administrator under section 9014(2)(A) for each fiscal year for use in paying the reasonable costs, incurred under a cooperative agreement with any State for—

(i) corrective actions taken by the State under section 9003(h)(7)(A);

(ii) necessary administrative expenses, as determined by the Administrator, that are directly related to State fund or State assurance programs under subsection (c)(1); or

(iii) enforcement, by a State or a local government, of State or local regulations pertaining to underground storage tanks regulated under this subtitle.

(B) USE OF FUNDS FOR ENFORCEMENT.—In addition to the uses of funds authorized under subparagraph (A), the Administrator may use funds from the Trust Fund that are not distributed to States under subparagraph (A) for enforcement of any regulation promulgated by the Administrator under this subtitle.

(C) PROHIBITED USES.—Funds provided to a State by the Administrator under subparagraph (A) shall not be used by the State to provide financial assistance to an owner or operator to meet any requirement relating to underground storage tanks under subparts B, C, D, H, and G of part 280 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this subsection).

## (2) ALLOCATION.—

(A) PROCESS.—Subject to subparagraphs (B) and (C), in the case of a State with which the Administrator has entered into a cooperative agreement under section 9003(h)(7)(A), the Administrator shall distribute funds from the Trust Fund to the State using an allocation process developed by the Administrator.

(B) DIVERSION OF STATE FUNDS.—The Administrator shall not distribute funds under subparagraph (A)(iii) of subsection (f)(1) to any State that has diverted funds from a State fund or State assurance program for purposes other than those related to the regulation of underground storage tanks covered by this subtitle, with the exception of those transfers that had been completed earlier than the date of enactment of this subsection.

(C) REVISIONS TO PROCESS.—The Administrator may revise the allocation process referred to in subparagraph (A) after—

(i) consulting with State agencies responsible for overseeing corrective action for releases from underground storage tanks; and

(ii) taking into consideration, at a minimum, each of the following:

(I) The number of confirmed releases from federally regulated leaking underground storage tanks in the States.

(II) The number of federally regulated underground storage tanks in the States.

(III) The performance of the States in implementing and enforcing the program.

(IV) The financial needs of the States.

(V) The ability of the States to use the funds referred to in subparagraph (A) in any year.

(3) DISTRIBUTIONS TO STATE AGENCIES.—Distributions from the Trust Fund under this subsection shall be made directly to a State agency that—

(A) enters into a cooperative agreement referred to in paragraph (2)(A); or

(B) is enforcing a State program approved under this section.

[42 U.S.C. 6991c]

#### INSPECTIONS, MONITORING, TESTING, AND CORRECTIVE ACTION

SEC. 9005. (a) FURNISHING INFORMATION.—For the purposes of developing or assisting in the development of any regulation, conducting any study, taking any corrective action, or enforcing the provisions of this subtitle, any owner or operator of an underground storage tank (or any tank subject to study under section 9009 that is used for storing regulated substances) shall, upon request of any officer, employee or representative of the Environmental Protection Agency, duly designated by the Administrator, or upon request of any duly designated officer, employee, or representative of a State acting pursuant to subsection (h)(7) of section 9003 or with an approved program, furnish information relating to such tanks, their associated equipment, their contents, conduct monitoring or testing, permit such officer at all reasonable times to have access to, and to copy all records relating to such tanks and permit such officer to have access for corrective action. For the purposes of developing or assisting in the development of any regulation, conducting any study, taking corrective action, or enforcing the provisions of this subtitle, such officers, employees, or representatives are authorized—

(1) to enter at reasonable times any establishment or other place where an underground storage tank is located;

(2) to inspect and obtain samples from any person of any regulated substances contained in such tank;

(3) to conduct monitoring or testing of the tanks, associated equipment, contents, or surrounding soils, air, surface water or ground water, and

(4) to take corrective action.

Each such inspection shall be commenced and completed with reasonable promptness.

(b) CONFIDENTIALITY.—(1) Any records, reports, or information obtained from any persons under this section shall be available to the public, except that upon a showing satisfactory to the Administrator (or the State, as the case may be) by any person that

records, reports, or information, or a particular part thereof, to which the Administrator (or the State, as the case may be) or any officer, employee, or representative thereof has access under this section if made public, would divulge information entitled to protection under section 1905 of title 18 of the United States Code, such information or particular portion thereof shall be considered confidential in accordance with the purposes of that section, except that such record, report, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act, or when relevant in any proceeding under this Act.

(2) Any person not subject to the provisions of section 1905 of title 18 of the United States Code who knowingly and willfully divulges or discloses any information entitled to protection under this subsection shall, upon conviction, be subject to a fine of not more than \$5,000 or to imprisonment not to exceed one year, or both.

(3) In submitting data under this subtitle, a person required to provide such data may—

(A) designate the data which such person believes is entitled to protection under this subsection, and

(B) submit such designated data separately from other data submitted under this subtitle.

A designation under this paragraph shall be made in writing and in such manner as the Administrator may prescribe.

(4) Notwithstanding any limitation contained in this section or any other provision of law, all information reported to, or otherwise obtained, by the Administrator (or any representative of the Administrator) under this Act shall be made available, upon written request of any duly authorized committee of the Congress, to such committee (including records, reports, or information obtained by representatives of the Environmental Protection Agency).

(c) INSPECTION REQUIREMENTS.—

(1) UNINSPECTED TANKS.—In the case of underground storage tanks regulated under this subtitle that have not undergone an inspection since December 22, 1998, not later than 2 years after the date of enactment of this subsection, the Administrator or a State that receives funding under this subtitle, as appropriate, shall conduct on-site inspections of all such tanks to determine compliance with this subtitle and the regulations under this subtitle (40 CFR 280) or a requirement or standard of a State program developed under section 9004.

(2) PERIODIC INSPECTIONS.—After completion of all inspections required under paragraph (1), the Administrator or a State that receives funding under this subtitle, as appropriate, shall conduct on-site inspections of each underground storage tank regulated under this subtitle at least once every 3 years to determine compliance with this subtitle and the regulations under this subtitle (40 CFR 280) or a requirement or standard of a State program developed under section 9004. The Administrator may extend for up to one additional year the first 3-year inspection interval under this paragraph if the State demonstrates that it has insufficient resources to complete all such inspections within the first 3-year period.

(3) INSPECTION AUTHORITY.—Nothing in this section shall be construed to diminish the Administrator's or a State's authorities under section 9005(a).

[42 U.S.C. 6991d]

#### FEDERAL ENFORCEMENT

SEC. 9006. (a) COMPLIANCE ORDERS.—(1) Except as provided in paragraph (2), whenever on the basis of any information, the Administrator determines that any person is in violation of any requirement of this subtitle, the Administrator may issue an order requiring compliance within a reasonable specified time period or the Administrator may commence a civil action in the United States district court in which the violation occurred for appropriate relief, including a temporary or permanent injunction.

(2) In the case of a violation of any requirement of this subtitle where such violation occurs in a State with a program approved under section 9004, the Administrator shall give notice to the State in which such violation has occurred prior to issuing an order or commencing a civil action under this section.

(3) If a violator fails to comply with an order under this subsection within the time specified in the order, he shall be liable for a civil penalty of not more than \$25,000 for each day of continued noncompliance.

(b) PROCEDURE.—Any order issued under this section shall become final unless, no later than thirty days after the order is served, the person or persons named therein request a public hearing. Upon such request the Administrator shall promptly conduct a public hearing. In connection with any proceeding under this section the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and may promulgate rules for discovery procedures.

(c) CONTENTS OF ORDER.—Any order issued under this section shall state with reasonable specificity the nature of the violation, specify a reasonable time for compliance, and assess a penalty, if any, which the Administrator determines is reasonable taking into account the seriousness of the violation and any good faith efforts to comply with the applicable requirements.

(d) CIVIL PENALTIES.—(1) Any owner who knowingly fails to notify or submits false information pursuant to section 9002(a) shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or false information is submitted.

(2) Any owner or operator of an underground storage tank who fails to comply with—

(A) any requirement or standard promulgated by the Administrator under section 9003;

(B) any requirement or standard of a State program approved pursuant to section 9004;



(C) the provisions of section 9003(g) (entitled “Interim Prohibition”); or <sup>45</sup>

(D) <sup>45</sup> the requirements established in section 9003(i),

(D) <sup>45</sup> the training requirements established by States pursuant to section 9010 (relating to operator training); or

(E) the delivery prohibition requirement established by section 9012,

shall be subject to a civil penalty not to exceed \$10,000 for each tank for each day of violation. Any person making or accepting a delivery or deposit of a regulated substance to an underground storage tank at an ineligible facility in violation of section 9012 shall also be subject to the same civil penalty for each day of such violation.

(e) INCENTIVE FOR PERFORMANCE.—Both of the following may be taken into account in determining the terms of a civil penalty under subsection (d):

(1) The compliance history of an owner or operator in accordance with this subtitle or a program approved under section 9004.

(2) Any other factor the Administrator considers appropriate.

[42 U.S.C. 6991e]

#### SEC. 9007. FEDERAL FACILITIES.

(a) IN GENERAL.—Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any underground storage tank or underground storage tank system, or (2) engaged in any activity resulting, or which may result, in the installation, operation, management, or closure of any underground storage tank, release response activities related thereto, or in the delivery, acceptance, or deposit of any regulated substance to an underground storage tank or underground storage tank system shall be subject to, and comply with, all Federal, State, interstate, and local requirements, both substantive and procedural (including any requirement for permits or reporting or any provisions for injunctive relief and such sanctions as may be imposed by a court to enforce such relief), respecting underground storage tanks in the same manner, and to the same extent, as any person is subject to such requirements, including the payment of reasonable service charges. The Federal, State, interstate, and local substantive and procedural requirements referred to in this subsection include, but are not limited to, all administrative orders and all civil and administrative penalties and fines, regardless of whether such penalties or fines are punitive or coercive in nature or are imposed for isolated, intermittent, or continuing violations. The United States hereby expressly waives any immunity otherwise applicable to the United States with respect to any such substantive or procedural requirement (including, but not limited to, any injunctive relief, administrative order or civil or administrative penalty or fine referred to in the preceding sentence, or reasonable service charge). The rea-

<sup>45</sup>So in law. The word “or” at the end of subparagraph (C) probably should not appear. Also, there are two subparagraph (D)s’ enacted into law. See amendments made by section 1524(c)(2) and 1530(d)(3) of Public Law 109–58 (119 Stat. 1096, 1104).

sonable service charges referred to in this subsection include, but are not limited to, fees or charges assessed in connection with the processing and issuance of permits, renewal of permits, amendments to permits, review of plans, studies, and other documents, and inspection and monitoring of facilities, as well as any other nondiscriminatory charges that are assessed in connection with a Federal, State, interstate, or local underground storage tank regulatory program. Neither the United States, nor any agent, employee, or officer thereof, shall be immune or exempt from any process or sanction of any State or Federal Court with respect to the enforcement of any such injunctive relief. No agent, employee, or officer of the United States shall be personally liable for any civil penalty under any Federal, State, interstate, or local law concerning underground storage tanks with respect to any act or omission within the scope of the official duties of the agent, employee, or officer. An agent, employee, or officer of the United States shall be subject to any criminal sanction (including, but not limited to, any fine or imprisonment) under any Federal or State law concerning underground storage tanks, but no department, agency, or instrumentality of the executive, legislative, or judicial branch of the Federal Government shall be subject to any such sanction. The President may exempt any underground storage tank of any department, agency, or instrumentality in the executive branch from compliance with such a requirement if he determines it to be in the paramount interest of the United States to do so. No such exemption shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation. Any exemption shall be for a period not in excess of 1 year, but additional exemptions may be granted for periods not to exceed 1 year upon the President's making a new determination. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting each such exemption.

(b) REVIEW OF AND REPORT ON FEDERAL UNDERGROUND STORAGE TANKS.—

(1) REVIEW.—Not later than 12 months after the date of enactment of the Underground Storage Tank Compliance Act, each Federal agency that owns or operates one or more underground storage tanks, or that manages land on which one or more underground storage tanks are located, shall submit to the Administrator, the Committee on Energy and Commerce of the United States House of Representatives, and the Committee on the Environment and Public Works of the Senate a compliance strategy report that—

(A) lists the location and owner of each underground storage tank described in this paragraph;

(B) lists all tanks that are not in compliance with this subtitle that are owned or operated by the Federal agency;

(C) specifies the date of the last inspection by a State or Federal inspector of each underground storage tank owned or operated by the agency;

(D) lists each violation of this subtitle respecting any underground storage tank owned or operated by the agency;

(E) describes the operator training that has been provided to the operator and other persons having primary daily on-site management responsibility for the operation and maintenance of underground storage tanks owned or operated by the agency; and

(F) describes the actions that have been and will be taken to ensure compliance for each underground storage tank identified under subparagraph (B).

(2) NOT A SAFE HARBOR.—This subsection does not relieve any person from any obligation or requirement under this subtitle.

[42 U.S.C. 6991f]

#### STATE AUTHORITY

SEC. 9008. Nothing in this subtitle shall preclude or deny any right of any State or political subdivision thereof to adopt or enforce any regulation, requirement, or standard of performance respecting underground storage tanks that is more stringent than a regulation, requirement, or standard of performance in effect under this subtitle or to impose any additional liability with respect to the release of regulated substances within such State or political subdivision.

[42 U.S.C. 6991g]

#### STUDY OF UNDERGROUND STORAGE TANKS

SEC. 9009. (a) PETROLEUM TANKS.—Not later than twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall complete a study of underground storage tanks used for the storage of regulated substances defined in section 9001(7)(B).

(b) OTHER TANKS.—Not later than thirty-six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall complete a study of all other underground storage tanks.

(c) ELEMENTS OF STUDIES.—The studies under subsections (a) and (b) shall include an assessment of the ages, types (including methods of manufacture, coatings, protection systems, the compatibility of the construction materials and the installation methods) and locations (including the climate of the locations) of such tanks; soil conditions, water tables, and the hydrogeology of tank locations; the relationship between the foregoing factors and the likelihood of releases from underground storage tanks; the effectiveness and costs of inventory systems, tank testing, and leak detection systems; and such other factors as the Administrator deems appropriate.

(d) FARM AND HEATING OIL TANKS.—Not later than thirty-six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall conduct a study regarding the tanks referred to in subparagraphs (A) and (B) of section 9001(10). Such study shall include estimates of the num-

ber and location of such tanks and an analysis of the extent to which there may be releases or threatened releases from such tanks into the environment.

(e) **REPORTS.**—Upon completion of the studies authorized by this section, the Administrator shall submit reports to the President and to the Congress containing the results of the studies and recommendations respecting whether or not such tanks should be subject to the preceding provisions of this subtitle.

(f) **REIMBURSEMENT.**—(1) If any owner or operator (excepting an agency, department, or instrumentality of the United States Government, a State or a political subdivision thereof) shall incur costs, including the loss of business opportunity, due to the closure or interruption of operation of an underground storage tank solely for the purpose of conducting studies authorized by this section, the Administrator shall provide such person fair and equitable reimbursement for such costs.

(2) All claims for reimbursement shall be filed with the Administrator not later than ninety days after the closure or interruption which gives rise to the claim.

(3) Reimbursements made under this section shall be from funds appropriated by the Congress pursuant to the authorization contained in section 2007(g).<sup>46</sup>

(4) For purposes of judicial review, a determination by the Administrator under this subsection shall be considered final agency action.

[42 U.S.C. 6991h]

#### **SEC. 9010. OPERATOR TRAINING.**

##### **(a) GUIDELINES.—**

(1) **IN GENERAL.**—Not later than 2 years after the date of enactment of the Underground Storage Tank Compliance Act, in consultation and cooperation with States and after public notice and opportunity for comment, the Administrator shall publish guidelines that specify training requirements for—

(A) persons having primary responsibility for on-site operation and maintenance of underground storage tank systems;

(B) persons having daily on-site responsibility for the operation and maintenance of underground storage tanks systems; and

(C) daily, on-site employees having primary responsibility for addressing emergencies presented by a spill or release from an underground storage tank system.

(2) **CONSIDERATIONS.**—The guidelines described in paragraph (1) shall take into account—

(A) State training programs in existence as of the date of publication of the guidelines;

(B) training programs that are being employed by tank owners and tank operators as of the date of enactment of the Underground Storage Tank Compliance Act;

(C) the high turnover rate of tank operators and other personnel;

<sup>46</sup>So in law. Probably should be “2007(f)”. There is no section 2007(g).

(D) the frequency of improvement in underground storage tank equipment technology;

(E) the nature of the businesses in which the tank operators are engaged;

(F) the substantial differences in the scope and length of training needed for the different classes of persons described in subparagraphs (A), (B), and (C) of paragraph (1); and

(G) such other factors as the Administrator determines to be necessary to carry out this section.

(b) STATE PROGRAMS.—

(1) IN GENERAL.—Not later than 2 years after the date on which the Administrator publishes the guidelines under subsection (a)(1), each State that receives funding under this subtitle shall develop State-specific training requirements that are consistent with the guidelines developed under subsection (a)(1).

(2) REQUIREMENTS.—State requirements described in paragraph (1) shall—

(A) be consistent with subsection (a);

(B) be developed in cooperation with tank owners and tank operators;

(C) take into consideration training programs implemented by tank owners and tank operators as of the date of enactment of this section; and

(D) be appropriately communicated to tank owners and operators.

(3) FINANCIAL INCENTIVE.—The Administrator may award to a State that develops and implements requirements described in paragraph (1), in addition to any funds that the State is entitled to receive under this subtitle, not more than \$200,000, to be used to carry out the requirements.

(c) TRAINING.—All persons that are subject to the operator training requirements of subsection (a) shall—

(1) meet the training requirements developed under subsection (b); and

(2) repeat the applicable requirements developed under subsection (b), if the tank for which they have primary daily on-site management responsibilities is determined to be out of compliance with—

(A) a requirement or standard promulgated by the Administrator under section 9003; or

(B) a requirement or standard of a State program approved under section 9004.

[42 U.S.C. 6991i]

**SEC. 9011. USE OF FUNDS FOR RELEASE PREVENTION AND COMPLIANCE.**

Funds made available under section 9014(2)(D) from the Trust Fund may be used to conduct inspections, issue orders, or bring actions under this subtitle—

(1) by a State, in accordance with a grant or cooperative agreement with the Administrator, of State regulations per-



taining to underground storage tanks regulated under this subtitle; and

(2) by the Administrator, for tanks regulated under this subtitle (including under a State program approved under section 9004).

[42 U.S.C. 6991j]

**SEC. 9012. DELIVERY PROHIBITION.**

(a) REQUIREMENTS.—

(1) PROHIBITION OF DELIVERY OR DEPOSIT.—Beginning 2 years after the date of enactment of this section, it shall be unlawful to deliver to, deposit into, or accept a regulated substance into an underground storage tank at a facility which has been identified by the Administrator or a State implementing agency to be ineligible for such delivery, deposit, or acceptance.

(2) GUIDANCE.—Within 1 year after the date of enactment of this section, the Administrator shall, in consultation with the States, underground storage tank owners, and product delivery industries, publish guidelines detailing the specific processes and procedures they will use to implement the provisions of this section. The processes and procedures include, at a minimum—

(A) the criteria for determining which underground storage tank facilities are ineligible for delivery, deposit, or acceptance of a regulated substance;

(B) the mechanisms for identifying which facilities are ineligible for delivery, deposit, or acceptance of a regulated substance to the underground storage tank owning and fuel delivery industries;

(C) the process for reclassifying ineligible facilities as eligible for delivery, deposit, or acceptance of a regulated substance;

(D) one or more processes for providing adequate notice to underground storage tank owners and operators and supplier industries that an underground storage tank has been determined to be ineligible for delivery, deposit, or acceptance of a regulated substance; and

(E) a delineation of, or a process for determining, the specified geographic areas subject to paragraph (4).

(3) COMPLIANCE.—States that receive funding under this subtitle shall, at a minimum, comply with the processes and procedures published under paragraph (2).

(4) CONSIDERATION.—

(A) RURAL AND REMOTE AREAS.—Subject to subparagraph (B), the Administrator or a State may consider not treating an underground storage tank as ineligible for delivery, deposit, or acceptance of a regulated substance if such treatment would jeopardize the availability of, or access to, fuel in any rural and remote areas unless an urgent threat to public health, as determined by the Administrator, exists.

(B) APPLICABILITY.—Subparagraph (A) shall apply only during the 180-day period following the date of a deter-

mination by the Administrator or the appropriate State under subparagraph (A).

(b) **EFFECT ON STATE AUTHORITY.**—Nothing in this section shall affect or preempt the authority of a State to prohibit the delivery, deposit, or acceptance of a regulated substance to an underground storage tank.

(c) **DEFENSE TO VIOLATION.**—A person shall not be in violation of subsection (a)(1) if the person has not been provided with notice pursuant to subsection (a)(2)(D) of the ineligibility of a facility for delivery, deposit, or acceptance of a regulated substance as determined by the Administrator or a State, as appropriate, under this section.

[42 U.S.C. 6991k]

#### **SEC. 9013. TANKS ON TRIBAL LANDS.**

(a) **STRATEGY.**—The Administrator, in coordination with Indian tribes, shall, not later than 1 year after the date of enactment of this section, develop and implement a strategy—

(1) giving priority to releases that present the greatest threat to human health or the environment, to take necessary corrective action in response to releases from leaking underground storage tanks located wholly within the boundaries of—

(A) an Indian reservation; or

(B) any other area under the jurisdiction of an Indian tribe; and

(2) to implement and enforce requirements concerning underground storage tanks located wholly within the boundaries of—

(A) an Indian reservation; or

(B) any other area under the jurisdiction of an Indian tribe.

(b) **REPORT.**—Not later than 2 years after the date of enactment of this section, the Administrator shall submit to Congress a report that summarizes the status of implementation and enforcement of this subtitle in areas located wholly within—

(1) the boundaries of Indian reservations; and

(2) any other areas under the jurisdiction of an Indian tribe.

The Administrator shall make the report under this subsection available to the public.

(c) **NOT A SAFE HARBOR.**—This section does not relieve any person from any obligation or requirement under this subtitle.

(d) **STATE AUTHORITY.**—Nothing in this section applies to any underground storage tank that is located in an area under the jurisdiction of a State, or that is subject to regulation by a State, as of the date of enactment of this section.

[42 U.S.C. 6991l]

#### **SEC. 9014. AUTHORIZATION OF APPROPRIATIONS.**

There are authorized to be appropriated to the Administrator the following amounts:

(1) To carry out subtitle I (except sections 9003(h), 9005(c), 9011, and 9012) \$50,000,000 for each of fiscal years 2006 through 2011.

(2) From the Trust Fund<sup>47</sup>—

(A) to carry out section 9003(h) (except section 9003(h)(12)) \$200,000,000 for each of fiscal years 2006 through 2011;

(B) to carry out section 9003(h)(12), \$200,000,000 for each of fiscal years 2006 through 2011;

(C) to carry out sections 9003(i), 9004(f), and 9005(c) \$100,000,000 for each of fiscal years 2006 through 2011; and

(D) to carry out sections 9010, 9011, 9012, and 9013 \$55,000,000 for each of fiscal years 2006 through 2011.

[42 U.S.C. 6991m]

#### Subtitle J—Demonstration Medical Waste Tracking Program

#### SEC. 11001. SCOPE OF DEMONSTRATION PROGRAM FOR MEDICAL WASTE.

(a) COVERED STATES.—The States within the demonstration program established under this subtitle for tracking medical wastes shall be New York, New Jersey, Connecticut, the States contiguous to the Great Lakes and any State included in the program through the petition procedure described in subsection (c), except for any of such States in which the Governor notifies the Administrator under subsection (b) that such State shall not be covered by the program.

(b) OPT OUT.—(1) If the Governor of any State covered under subsection (a) which is not contiguous to the Atlantic Ocean notifies the Administrator that such State elects not to participate in the demonstration program, the Administrator shall remove such State from the program.

(2) If the Governor of any other State covered under subsection (a) notifies the Administrator that such State has implemented a medical waste tracking program that is no less stringent than the demonstration program under this subtitle and that such State elects not to participate in the demonstration program, the Administrator shall, if the Administrator determines that such State program is no less stringent than the demonstration program under this subtitle, remove such State from the demonstration program.

(3) Notifications under paragraphs (1) or (2) shall be submitted to the Administrator no later than 30 days after the promulgation of regulations implementing the demonstration program under this subtitle.

(c) PETITION IN.—The Governor of any State may petition the Administrator to be included in the demonstration program and the Administrator may, in his discretion, include any such State. Such petition may not be made later than 30 days after promulgation of regulations establishing the demonstration program under this subtitle, and the Administrator shall determine whether to include the State within 30 days after receipt of the State's petition.

<sup>47</sup>Section 210 of Public Law 109–432 (division A) provided for an amendment to strike “Fund, notwithstanding section 9508(c)(1) of the Internal Revenue Code of 1986” and insert “Fund”. Section 1(b) of Public Law 109–433 provides for an identical amendment which could not be executed.

(d) EXPIRATION OF DEMONSTRATION PROGRAM.—The demonstration program shall expire on the date 24 months after the effective date of the regulations under this subtitle.

[42 U.S.C. 6992]

**SEC. 11002. LISTING OF MEDICAL WASTES.**

(a) LIST.—Not later than 6 months after the enactment of this subtitle, the Administrator shall promulgate regulations listing the types of medical waste to be tracked under the demonstration program. Except as provided in subsection (b), such list shall include, but need not be limited to, each of the following types of solid waste:

(1) Cultures and stocks of infectious agents and associated biologicals, including cultures from medical and pathological laboratories, cultures and stocks of infectious agents from research and industrial laboratories, wastes from the production of biologicals, discarded live and attenuated vaccines, and culture dishes and devices used to transfer, inoculate, and mix cultures.

(2) Pathological wastes, including tissues, organs, and body parts that are removed during surgery or autopsy.

(3) Waste human blood and products of blood, including serum, plasma, and other blood components.

(4) Sharps that have been used in patient care or in medical, research, or industrial laboratories, including hypodermic needles, syringes, pasteur pipettes, broken glass, and scalpel blades.

(5) Contaminated animal carcasses, body parts, and bedding of animals that were exposed to infectious agents during research, production of biologicals, or testing of pharmaceuticals.

(6) Wastes from surgery or autopsy that were in contact with infectious agents, including soiled dressings, sponges, drapes, lavage tubes, drainage sets, underpads, and surgical gloves.

(7) Laboratory wastes from medical, pathological, pharmaceutical, or other research, commercial, or industrial laboratories that were in contact with infectious agents, including slides and cover slips, disposable gloves, laboratory coats, and aprons.

(8) Dialysis wastes that were in contact with the blood of patients undergoing hemodialysis, including contaminated disposable equipment and supplies such as tubing, filters, disposable sheets, towels, gloves, aprons, and laboratory coats.

(9) Discarded medical equipment and parts that were in contact with infectious agents.

(10) Biological waste and discarded materials contaminated with blood, excretion, excudates<sup>48</sup> or secretion from human beings or animals who are isolated to protect others from communicable diseases.

(11) Such other waste material that results from the administration of medical care to a patient by a health care pro-

<sup>48</sup>So in law. Probably should be “exudates”.

vider and is found by the Administrator to pose a threat to human health or the environment.

(b) **EXCLUSIONS FROM LIST.**—The Administrator may exclude from the list under this section any categories or items described in paragraphs (6) through (10) of subsection (a) which he determines do not pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

[42 U.S.C. 6992a]

**SEC. 11003. TRACKING OF MEDICAL WASTE.**

(a) **DEMONSTRATION PROGRAM.**—Not later than 6 months after the enactment of this subtitle, the Administrator shall promulgate regulations establishing a program for the tracking of the medical waste listed in section 11002 which is generated in a State subject to the demonstration program. The program shall (1) provide for tracking of the transportation of the waste from the generator to the disposal facility, except that waste that is incinerated need not be tracked after incineration, (2) include a system for providing the generator of the waste with assurance that the waste is received by the disposal facility, (3) use a uniform form for tracking in each of the demonstration States, and (4) include the following requirements:

(A) A requirement for segregation of the waste at the point of generation where practicable.

(B) A requirement for placement of the waste in containers that will protect waste handlers and the public from exposure.

(C) A requirement for appropriate labeling of containers of the waste.

(b) **SMALL QUANTITIES.**—In the program under subsection (a), the Administrator may establish an exemption for generators of small quantities of medical waste listed under section 11002, except that the Administrator may not exempt from the program any person who, or facility that, generates 50 pounds or more of such waste in any calendar month.

(c) **ON-SITE INCINERATORS.**—Concurrently with the promulgation of regulations under subsection (a), the Administrator shall promulgate a recordkeeping and reporting requirement for any generator in a demonstration State of medical waste listed in section 11002 that (1) incinerates medical waste listed in section 11002 on site and (2) does not track such waste under the regulations promulgated under subsection (a). Such requirement shall require the generator to report to the Administrator on the volume and types of medical waste listed in section 11002 that the generator incinerated on site during the 6 months following the effective date of the requirements of this subsection.

(d) **TYPE OF MEDICAL WASTE AND TYPES OF GENERATORS.**—For each of the requirements of this section, the regulations may vary for different types of medical waste and for different types of medical waste generators.

[42 U.S.C. 6992b]



**SEC. 11004. INSPECTIONS.**

(a) **REQUIREMENTS FOR ACCESS.**—For purposes of developing or assisting in the development of any regulation or report under this subtitle or enforcing any provision of this subtitle, any person who generates, stores, treats, transports, disposes of, or otherwise handles or has handled medical waste shall, upon request of any officer, employee, or representative of the Environmental Protection Agency duly designated by the Administrator, furnish information relating to such waste, including any tracking forms required to be maintained under section 11003, conduct monitoring or testing, and permit such person at all reasonable times to have access to, and to copy, all records relating to such waste. For such purposes, such officers, employees, or representatives are authorized to—

(1) enter at reasonable times any establishment or other place where medical wastes are or have been generated, stored, treated, disposed of, or transported from;

(2) conduct monitoring or testing; and

(3) inspect and obtain samples from any person of any such wastes and samples of any containers or labeling for such wastes.

(b) **PROCEDURES.**—Each inspection under this section shall be commenced and completed with reasonable promptness. If the officer, employee, or representative obtains any samples, prior to leaving the premises he shall give to the owner, operator, or agent in charge a receipt describing the sample obtained and, if requested, a portion of each such sample equal in volume or weight to the portion retained if giving such an equal portion is feasible. If any analysis is made of such samples, a copy of the results of such analysis shall be furnished promptly to the owner, operator, or agent in charge of the premises concerned.

(c) **AVAILABILITY TO PUBLIC.**—The provisions of section 3007(b) of this Act shall apply to records, reports, and information obtained under this section in the same manner and to the same extent as such provisions apply to records, reports, and information obtained under section 3007.

[42 U.S.C. 6992c]

**SEC. 11005. ENFORCEMENT.**

(a) **COMPLIANCE ORDERS.**—

(1) **VIOLATIONS.**—Whenever on the basis of any information the Administrator determines that any person has violated, or is in violation of, any requirement or prohibition in effect under this subtitle (including any requirement or prohibition in effect under regulations under this subtitle) (A) the Administrator may issue an order (i) assessing a civil penalty for any past or current violation, (ii) requiring compliance immediately or within a specified time period, or (iii) both, or (B) the Administrator may commence a civil action in the United States district court in the district in which the violation occurred for appropriate relief, including a temporary or permanent injunction. Any order issued pursuant to this subsection shall state with reasonable specificity the nature of the violation.

(2) **ORDERS ASSESSING PENALTIES.**—Any penalty assessed in an order under this subsection shall not exceed \$25,000 per day of noncompliance for each violation of a requirement or prohibition in effect under this subtitle. In assessing such a penalty, the Administrator shall take into account the seriousness of the violation and any good faith efforts to comply with applicable requirements.

(3) **PUBLIC HEARING.**—Any order issued under this subsection shall become final unless, not later than 30 days after issuance of the order, the persons named therein request a public hearing. Upon such request, the Administrator shall promptly conduct a public hearing. In connection with any proceeding under this section, the Administrator may issue subpoenas for the production of relevant papers, books, and documents, and may promulgate rules for discovery procedures.

(4) **VIOLATION OF COMPLIANCE ORDERS.**—In the case of an order under this subsection requiring compliance with any requirement of or regulation under this subtitle, if a violator fails to take corrective action within the time specified in an order, the Administrator may assess a civil penalty of not more than \$25,000 for each day of continued noncompliance with the order.

(b) **CRIMINAL PENALTIES**<sup>49</sup>.—Any person who—

(1) knowingly violates the requirements of or regulations under this subtitle;

(2) knowingly omits material information or makes any false material statement or representation in any label, record, report, or other document filed, maintained, or used for purposes of compliance with this subtitle or regulations thereunder; or

(3) knowingly generates, stores, treats, transports, disposes of, or otherwise handles any medical waste (whether such activity took place before or takes place after the date of the enactment of this paragraph) and who knowingly destroys, alters, conceals, or fails to file any record, report, or other document required to be maintained or filed for purposes of compliance with this subtitle or regulations thereunder

shall, upon conviction, be subject to a fine of not more than \$50,000 for each day of violation, or imprisonment not to exceed 2 years (5

<sup>49</sup>The Medical Waste Tracking Act of 1988 (P.L. 100–582), which added subtitle J to the Solid Waste Disposal Act, also amended title 18, United States Code, by adding the following new section at the end of chapter 203:

**§ 3063. Powers of Environmental Protection Agency**

(a) Upon designation by the Administrator of the Environmental Protection Agency, any law enforcement officer of the Environmental Protection Agency with responsibility for the investigation of criminal violations of a law administered by the Environmental Protection Agency, may—

(1) carry firearms;

(2) execute and serve any warrant or other processes issued under the authority of the United States; and

(3) make arrests without warrant for—

(A) any offense against the United States committed in such officer's presence; or

(B) any felony offense against the United States if such officer has probable cause to believe that the person to be arrested has committed or is committing that felony offense.

(b) The powers granted under subsection (a) of this section shall be exercised in accordance with guidelines approved by the Attorney General.

years in the case of a violation of paragraph (1)). If the conviction is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment under the respective paragraph shall be doubled with respect to both fine and imprisonment.

(c) **KNOWING ENDANGERMENT.**—Any person who knowingly violates any provision of subsection (b) who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall upon conviction be subject to a fine of not more than \$250,000 or imprisonment for not more than 15 years, or both. A defendant that is an organization shall, upon conviction under this subsection, be subject to a fine of not more than \$1,000,000. The terms of this paragraph shall be interpreted in accordance with the rules provided under section 3008(f) of this Act.

(d) **CIVIL PENALTIES.**—Any person who violates any requirement of or regulation under this subtitle shall be liable to the United States for a civil penalty in an amount not to exceed \$25,000 for each such violation. Each day of such violation shall, for purposes of this section, constitute a separate violation.

(e) **CIVIL PENALTY POLICY.**—Civil penalties assessed by the United States or by the States under this subtitle shall be assessed in accordance with the Administrator's "RCRA Civil Penalty Policy", as such policy may be amended from time to time.

[42 U.S.C. 6992d]

#### **SEC. 11006. FEDERAL FACILITIES.**

(a) **IN GENERAL.**—Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government in a demonstration State (1) having jurisdiction over any solid waste management facility or disposal site at which medical waste is disposed of or otherwise handled, or (2) engaged in any activity resulting, or which may result, in the disposal, management, or handling of medical waste shall be subject to, and comply with, all Federal, State, interstate, and local requirements, both substantive and procedural (including any requirement for permits or reporting or any provisions for injunctive relief and such sanctions as may be imposed by a court to enforce such relief), respecting control and abatement of medical waste disposal and management in the same manner, and to the same extent, as any person is subject to such requirements, including the payment of reasonable service charges. The Federal, State, interstate, and local substantive and procedural requirements referred to in this subsection include, but are not limited to, all administrative orders, civil, criminal, and administrative penalties, and other sanctions, including injunctive relief, fines, and imprisonment. Neither the United States, nor any agent, employee, or officer thereof, shall be immune or exempt from any process or sanction of any State or Federal court with respect to the enforcement of any such order, penalty, or other sanction. For purposes of enforcing any such substantive or procedural requirement (including, but not limited to, any injunctive relief, administrative order, or civil, criminal, administrative penalty, or other sanction), against any such department, agency, or instrumentality, the United States hereby expressly waives any immunity otherwise applicable to the United States.

The President may exempt any department, agency, or instrumentality in the executive branch from compliance with such a requirement if he determines it to be in the paramount interest of the United States to do so. No such exemption shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods not to exceed one year upon the President's making a new determination. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting each such exemption.

(b) **DEFINITION OF PERSON.**—For purposes of this Act, the term “person” shall be treated as including each department, agency, and instrumentality of the United States.

[42 U.S.C. 6992e]

#### **SEC. 11007. RELATIONSHIP TO STATE LAW.**

(a) **STATE INSPECTIONS AND ENFORCEMENT.**—A State may conduct inspections under<sup>50</sup> 11004 and take enforcement actions under section 11005 against any person, including any person who has imported medical waste into a State in violation of the requirements of, or regulations under, this subtitle, to the same extent as the Administrator. At the time a State initiates an enforcement action under section 11005 against any person, the State shall notify the Administrator in writing.

(b) **RETENTION OF STATE AUTHORITY.**—Nothing in this subtitle shall—

- (1) preempt any State or local law; or
- (2) except as provided in subsection (c), otherwise affect any State or local law or the authority of any State or local government to adopt or enforce any State or local law.

(c) **STATE FORMS.**—Any State or local law which requires submission of a tracking form from any person subject to this subtitle shall require that the form be identical in content and format to the form required under section 11003, except that a State may require the submission of other tracking information which is supplemental to the information required on the form required under section 11003 through additional sheets or such other means as the State deems appropriate.

[42 U.S.C. 6992f]

#### **SEC. 11008. HEALTH IMPACTS REPORT.**

Within 24 months after the enactment of this section, the Administrator of the Agency for Toxic Substances and Disease Registry shall prepare for Congress a report on the health effects of medical waste, including each of the following—

- (1) A description of the potential for infection or injury from the segregation, handling, storage, treatment, or disposal of medical wastes.

<sup>50</sup> So in law. Probably should be followed by “section”.

(2) An estimate of the number of people injured or infected annually by sharps, and the nature and seriousness of those injuries or infections.

(3) An estimate of the number of people infected annually by other means related to waste segregation, handling, storage, treatment, or disposal, and the nature and seriousness of those infections.

(4) For diseases possibly spread by medical waste, including Acquired Immune Deficiency Syndrome and hepatitis B, an estimate of what percentage of the total number of cases nationally may be traceable to medical wastes.

[42 U.S.C. 6992h]

#### SEC. 11009. GENERAL PROVISIONS.

(a) CONSULTATION.—(1) In promulgating regulations under this subtitle, the Administrator shall consult with the affected States and may consult with other interested parties.

(2) The Administrator shall also consult with the International Joint Commission to determine how to monitor the disposal of medical waste emanating from Canada.

(b) PUBLIC COMMENT.—In the case of the regulations required by this subtitle to be promulgated within 9 months after the enactment of this subtitle, the Administrator may promulgate such regulations in interim final form without prior opportunity for public comment, but the Administrator shall provide an opportunity for public comment on the interim final rule. The promulgation of such regulations shall not be subject to the Paperwork Reduction Act of 1980.

(c) RELATIONSHIP TO SUBTITLE C.—Nothing in this subtitle shall affect the authority of the Administrator to regulate medical waste, including medical waste listed under section 11002, under subtitle C of this Act.

[42 U.S.C. 6992i]

#### SEC. 11010. EFFECTIVE DATE.

The regulations promulgated under this subtitle shall take effect within 90 days after promulgation, except that, at the time of promulgation, the Administrator may provide for a shorter period prior to the effective date if he finds the regulated community does not need 90 days to come into compliance.

[42 U.S.C. 6992j]

#### SEC. 11011. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Administrator such sums as may be necessary for each of the fiscal years 1989 through 1991 for purposes of carrying out activities under this subtitle.

[42 U.S.C. 6992k]



## NOTE

The Solid Waste Disposal Act Amendments of 1980 (Public Law 96-482) contained the following provisions which did not amend the Solid Waste Disposal Act:

## ENERGY AND MATERIALS CONSERVATION AND RECOVERY

SEC. 32. [42 U.S.C. 6941a] (a) The Congress finds that—

(1) significant savings could be realized by conserving materials in order to reduce the volume or quantity of material which ultimately becomes waste;

(2) solid waste contains valuable energy and material resources which can be recovered and used thereby conserving increasingly scarce and expensive fossil fuels and virgin materials;

(3) the recovery of energy and materials from municipal waste, and the conservation of energy and materials contributing to such waste streams, can have the effect of reducing the volume of the municipal waste stream and the burden of disposing of increasing volumes of solid waste;

(4) the technology to conserve resources exists and is commercially feasible to apply;

(5) the technology to recover energy and materials from solid waste is of demonstrated commercial feasibility; and

(6) various communities throughout the nation have different needs and different potentials for conserving resources and for utilizing techniques for the recovery of energy and materials from waste, and Federal assistance in planning and implementing such energy and materials conservation and recovery programs should be available to all such communities on an equitable basis in relation to their needs and potential.

\* \* \* \* \*

## NATIONAL ADVISORY COMMISSION ON RESOURCE CONSERVATION AND RECOVERY

SEC. 33. [42 U.S.C. 6981 note] (a)(1) There is hereby established in the executive branch of the United States the National Advisory Commission on Resource Conservation and Recovery, hereinafter in this section referred to as the "Commission".

(2) The Commission shall be composed of nine members to be appointed by the President. Such members shall be qualified by reason of their education, training, or experience to represent the view of consumer groups, industry associations, and environmental and other groups concerned with resource conservation and recovery and at least two shall be elected or appointed State or local officials. Members shall be appointed for the life of the Commission.

(3) A vacancy in the Commission shall be filled in the manner in which the original appointment was made.

(4) Five members of the Commission shall constitute a quorum for transacting business of the Commission except that a lesser

number may hold hearings and conduct information-gathering meetings.

(5) The Chairperson of the Commission shall be designated by the President from among the members.

(6) Upon the expiration of the two-year period beginning on (A) the date when all initial members of the Commission have been appointed or when (B) the date when initial funds become available to carry out this section, whichever is later, the Commission shall transmit to the President, and to each House of the Congress, a final report containing a detailed statement of the findings and conclusions of the Commission, together with such recommendations as it deems advisable.

(7) The Commission shall submit an interim report on February 15, 1982, and the Commission may also submit, for legislative and administrative actions relating to the Solid Waste Disposal Act, other interim reports prior to the submission of its final report.

(8) The Commission shall cease to exist 30 days after submission of its final report.

(b) The Commission shall—

(1) after consultation with the appropriate Federal agencies, review budgetary priorities relating to resource conservation and recovery, determine to what extent program goals relating to resource conservation and recovery are being realized, and make recommendations concerning the appropriate program balance and priorities;

(2) review any existing or proposed resource conservation and recovery guidelines or regulations;

(3) determine the economic development or savings potential of resource conservation and recovery, including the availability of markets for recovered energy and materials, for economic materials savings through conservation, and make recommendations concerning the utilization of such potential;

(4) identify, and make recommendations addressing, institutional obstacles impeding the development of resource conservation and resource recovery; and

(5) evaluate the status of resource conservation and recovery technology and systems including both materials and energy recovery technologies, recycling methods, and other innovative methods for both conserving energy and materials extractable from solid waste.

The review referred to in paragraph (1) should include but not be limited to an assessment of the effectiveness of the technical assistance panels, the public participation program and other program activities under the Solid Waste Disposal Act.

(c)(1) Members of the Commission while serving on business of the Commission, shall be compensated at a rate not to exceed the rate specified at the time of such service for grade GS-16 of the General Schedule for each day they are engaged in the actual performance of Commission duties, including travel time; and while so serving away from their homes or regular places of business, all members of the Commission may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section

5703 of title 5, United States Code, for persons in Government service employed intermittently.

(2) Subject to such rules as may be adopted by the Commission, the Chairperson, without regard to the provisions of title 5, United States Code, governing appointments in the competitive service and without regard to the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule pay rates, shall have the power to—

(A) appoint a Director, who shall be paid at a rate not to exceed the rate of basic pay for level I, GS-16 of the General Schedule; and

(B) appoint and fix the compensation of not more than 5 additional staff personnel.

(3) This Commission is authorized to procure temporary and intermittent services of experts and consultants as are necessary to the extent authorized by section 3109 of title 5, United States Code, but at rates not to exceed the rate specified at the time of such service for grade GS-16 in section 5332 of such title. Experts and consultants may be employed without compensation if they agree to do so in advance.

(4) Upon request of the Commission, the head of any Federal agency is authorized to detail on a reimbursable or nonreimbursable basis any of the personnel of such agency to the Commission to assist the Commission in carrying out its duties under this section.

(5) The Commission is exempt from the requirements of sections 4301 through 4308 of title 5, United States Code.

(6) The Commission is authorized to enter into contracts with Federal and State agencies, private firms, institutions, and individuals for the conduct of research or surveys, the preparation of reports, and other activities necessary to the discharge of its duties and responsibilities.

(7) In order to expedite matters pertaining to the planning for, and work of, the Commission, the Commission is authorized to make purchases and contracts without regard to section 252 of title 41 of the United States Code, pertaining to advertising and competitive bidding, and may arrange for the printing of any material pertaining to the work of the Commission without regard to the Government Printing and Binding Regulations and any related laws or regulations.

(8) The Commission may use the United States mail in the same manner and under the same conditions as other departments and agencies of the United States.

(9) The Commission may secure directly from any department or agency of the United States information necessary to enable it to carry out its duties and functions. Upon request of the Chairperson, the head of any such Federal agency shall furnish such information to the Commission subject to applicable law.

(10) Financial and administrative services (including those related to budget and accounting, financial reporting, personnel, and procurement) shall be provided to the Commission by the General Services Administration for which payment shall be made in advance, or by reimbursement, from funds of the Commission, in such

amounts as may be agreed upon by the Chairperson of the Commission and the Administrator of General Services.

(d) In carrying out its duties under this section the Commission, or any duly authorized committee thereof, is authorized to hold such hearings and take testimony, with respect to matters to which it has a responsibility under this section as the Commission may deem advisable. The Chairperson of the Commission or any member authorized by him may administer oaths or affirmations to witnesses appearing before the Commission or before any committee thereof.

(e) From the amounts authorized to be appropriated under the Solid Waste Disposal Act for the fiscal years 1981 and 1982, not more than \$1,000,000 may be used to carry out the provisions of this section.

#### NOTE

The Used Oil Recycling Act of 1980 (Public Law 96-463) contained the following provisions which did not amend the Solid Waste Disposal Act:

#### SEC. 4. \* \* \*

(c) [42 U.S.C. 6363 note] Before the effective date of the labeling standards required to be prescribed under section 383(d)(1)(A) of the Energy Policy and Conservation Act, no requirement of any rule or order of the Federal Trade Commission may apply, or remain applicable, to any container or recycled oil (as defined in section 383(b) of such Act) if such requirement provides that the container must bear any label referring to the fact that it has been derived from previously used oil. Nothing in this subsection shall be construed to affect any labeling requirement applicable to recycled oil under any authority of law to the extent such requirement relates to fitness for intended use or any other performance characteristic of such oil or to any characteristic of such oil other than that referred to in the preceding sentence.

\* \* \* \* \*

#### STUDY

SEC. 9. The Administrator of the Environmental Protection Agency, in cooperation with the Secretary of Energy, the Federal Trade Commission, and the Secretary of Commerce, shall conduct a study—

- (1) assessing the environmental problems associated with the improper disposal or reuse of oil;
- (2) addressing the collection cycle of used oil prior to recycling;
- (3) analyzing supply and demand in the used oil industry, including (A) estimates of the future supply and quality of used oil feedstocks for purpose of refining and (B) estimates of the future supply of virgin crude oil available for refining for purposes of producing lubricating oil;

(4) comparing the energy savings associated with re-refining used oil and the energy savings associated with other uses of used oil; and

(5) recommending Federal, State, and local policies to encourage methods for environmentally sound and economically feasible recycling of used oil.

#### NOTE

The Hazardous and Solid Waste Amendments of 1984 (Public Law 98-616) contained the following provisions which did not amend the Solid Waste Disposal Act:

### TITLE VII—OTHER PROVISIONS

#### REPORT TO CONGRESS ON INJECTION OF HAZARDOUS WASTE

SEC. 701. (a) The Administrator, in cooperation with the States, shall compile and, not later than six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, submit to the Committee on Environment and Public Works of the United States Senate and the Committee on Energy and Commerce of the United States House of Representatives, an inventory of all wells in the United States which inject hazardous wastes. The inventory shall include the following information:

- (1) the location and depth of each well;
- (2) engineering and construction details of each, including the thickness and composition of its casing, the width and content of the annulus, and pump pressure and capacity;
- (3) the hydrogeological characteristics of the overlying and underlying strata, as well as that into which the waste is injected;
- (4) the location and size of all drinking water aquifers penetrated by the well, or within a one-mile radius of the well or within two hundred feet below the well injection point;
- (5) the location, capacity, and population served by each well providing drinking or irrigation water which is within a five-mile radius of the injection well;
- (6) the nature and volume of the waste injected during the one-year period immediately preceding the date of the report;
- (7) the dates and nature of the inspections of the injection well conducted by independent third parties or agents of State, Federal, or local government;
- (8) the name and address of all owners and operators of the well and any disposal facility associated with it;
- (9) the identification of all wells at which enforcement actions have been initiated under this Act (by reason of well failure, operator error, ground water contamination or for other reasons) and an identification of the wastes involved in such enforcement actions; and
- (10) such other information as the Administrator may, in his discretion, deem necessary to define the scope and nature of hazardous waste disposal in the United States through underground injection.



(b) In fulfilling the requirements of paragraphs (3) through (5) of subsection (a), the Administrator need only submit such information as can be obtained from currently existing State records and from site visits to at least twenty facilities containing wells which inject hazardous waste.

(c) The States shall make available to the Administrator such information as he deems necessary to accomplish the objectives of this section.

\* \* \* \* \*

#### URANIUM MILL TAILINGS

SEC. 703. [42 U.S.C. 6905 note] Nothing in the Hazardous and Solid Waste Amendments of 1984 shall be construed to affect, modify, or amend the Uranium Mill Tailings Radiation Control Act of 1978.

#### NATIONAL GROUND WATER COMMISSION

SEC. 704. (a) There is established a commission to be known as the National Ground Water Commission (hereinafter in this section referred to as the "Commission").

(b) The duties of the Commission are to:

(1) Assess generally the amount, location, and quality of the Nation's ground water resources.

(2) Identify generally the sources, extent, and types of ground water contamination.

(3) Assess the scope and nature of the relationship between ground water contamination and ground water withdrawal and develop projections of available, usable ground water in future years on a nationwide basis.

(4) Assess the relationship between surface water pollution and ground water pollution.

(5) Assess the need for a policy to protect ground water from degradation caused by contamination.

(6) Assess generally the extent of overdrafting of ground water resources, and the adequacy of existing mechanisms for preventing such overdrafting.

(7) Assess generally the engineering and technological capability to recharge aquifers.

(8) Assess the adequacy of the present understanding of ground water recharge zones and sole source aquifers and assess the adequacy of knowledge regarding the interrelationship of designated aquifers and recharge zones.

(9) Assess the role of land-use patterns as these relate to protecting ground water from contamination.

(10) Assess methods for remedial abatement of ground water contamination as well as the costs and benefits of cleaning up polluted ground water and compare cleanup costs to the costs of substitute water supply methods.

(11) Investigate policies and actions taken by foreign governments to protect ground water from contamination.

(12) Assess the use and effectiveness of existing interstate compacts to address ground water protection from contamination.

(13) Analyze existing legal rights and remedies regarding contamination of ground water.

(14) Assess the adequacy of existing standards for ground water quality under State and Federal law.

(15) Assess monitoring methodologies of the States and the Federal Government to achieve the level of protection of the resource as required by State and Federal law.

(16) Assess the relationship between ground water flow systems (and associated recharge areas) and the control of sources of contamination.

(17) Assess the role of underground injection practices as a means of disposing of waste fluids while protecting ground water from contamination.

(18) Assess methods for abatement and containment of ground water contamination and for aquifer restoration including the costs and benefits of alternatives to abatement and containment.

(19) Assess State and Federal ground water law and mechanisms with which to manage the quality of the ground water resource.

(20) Assess the adequacy of existing ground water research and determine future ground water research needs.

(21) Assess the roles of State, local, and Federal Governments in managing ground water quality.

(c)(1) The Commission shall be composed of nineteen members as follows:

(A) six appointed by the Speaker of the United States House of Representatives from among the Members of the House of Representatives, two of whom shall be members of the Committee on Energy and Commerce, two of whom shall be members of the Committee on Public Works and Transportation, and two of whom shall be members of the Committee on Interior and Insular Affairs;

(B) four appointed by the majority leader of the United States Senate from among the Members of the United States Senate;

(C) eight appointed by the President as follows:

(i) four from among a list of nominations submitted to the President by the National Governors Association, two of whom shall be representatives of ground water appropriation States and two of whom shall be representatives of ground water riparian States;

(ii) one from among a list of nominations submitted to the President by the National League of Cities and the United States Conference of Mayors;

(iii) one from among a list of nominations submitted to the President by the National Academy of Science;

(iv) one from among a list of nominations submitted to the President by groups, organizations, or associations of industries the activities of which may affect ground water; and

(v) one from among a list of nominations submitted to the President from groups, organizations, or associations of citizens which are representative of persons concerned with pollution and environmental issues and which have participated, at the State or Federal level, in studies, administrative proceedings, or litigation (or any combination thereof) relating to ground water; and

(D) the Director of the Office of Technology Assessment.

A vacancy in the Commission shall be filled in the manner in which the original appointment was made. Appointments may be made under this subsection without regard to section 5311(b) of title 5, United States Code. Not more than three of the six members appointed under subparagraph (A) and not more than two of the four members appointed under subparagraph (B) may be of the same political party. No member appointed under paragraph (C) may be an officer or employee of the Federal Government.

(2) If any member of the Commission who was appointed to the Commission as a Member of the Congress leaves that office, or if any member of the Commission who was appointed from persons who are not officers or employees of any government becomes an officer or employee of a government, he may continue as a member of the Commission for not longer than the ninety-day period beginning on the date he leaves that office or becomes such an officer or employee, as the case may be.

(3) Members shall be appointed for the life of the Commission.

(4)(A) Except as provided in subparagraph (B), members of the Commission shall each be entitled (subject to appropriations provided in advance) to receive the daily equivalent of the maximum annual rate of basic pay in effect for grade GS-18 of the General Schedule for each day (including travel time) during which they are engaged in the actual performance of duties vested in the Commission. While away from their homes or regular places of business in the performance of services for the Commission, members of the Commission shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in Government service are allowed expenses under section 5703 of title 5 of the United States Code.

(B) Members of the Commission who are Members of the Congress shall receive no additional pay, allowances, or benefits by reason of their service on the Commission.

(5) Five members of the Commission shall constitute a quorum but two may hold hearings.

(6) The Chairman of the Commission shall be appointed by the Speaker of the House of Representatives from among members appointed under paragraph (1)(A) of this subsection and the Vice Chairman of the Commission shall be appointed by the majority leader of the Senate from among members appointed under paragraph (1)(B) of this subsection. The Chairman and the Vice Chairman of the Commission shall serve for the life of the Commission unless they cease to be members of the Commission before the termination of the Commission.

(7) The Commission shall meet at the call of the Chairman or a majority of its members.

(d)(1) The Commission shall have a Director who shall be appointed by the Chairman, without regard to section 5311(b) of title 5, United States Code.

(2) The Chairman may appoint and fix the pay of such additional personnel as the Chairman considers appropriate.

(3) With the approval of the Commission, the Chairman may procure temporary and intermittent services under section 3109(b) of title 5 of the United States Code.

(4) The Commission shall request, and the Chief of Engineers and the Director of the Geological Survey are each authorized to detail, on a reimbursable basis, any of the personnel of their respective agencies to the Commission to assist it in carrying out its duties under this section. Upon request of the Commission, the head of any other Federal agency is authorized to detail, on a reimbursable basis, any of the personnel of such agency to the Commission to assist it in carrying out its duties under this section.

(e)(1) The Commission may, for the purpose of carrying out this section, hold such hearings, sit and act at such times and places, take such testimony, and receive such evidence, as the Commission considers appropriate.

(2) Any member or agent of the Commission may, if so authorized by the Commission, take any action which the Commission is authorized to take by this section.

(3) The Commission may use the United States mails in the same manner and under the same conditions as other departments and agencies of the United States.

(4) The Administrator of General Services shall provide to the Commission on a reimbursable basis such administrative support services as the Commission may request.

(5) The Commission may secure directly from any department or agency of the United States information necessary to enable it to carry out this section. Upon request of the Chairman of the Commission, the head of such department or agency shall furnish such information to the Commission.

(f)(1) The Commission shall transmit to the President and to each House of the Congress a report not later than October 30, 1986. The report shall contain a detailed statement of the findings and conclusions of the Commission with respect to each item listed in subsection (b), together with its recommendations for such legislation; and administrative actions, as it considers appropriate.

(2) Not later than one year after the enactment of the Hazardous and Solid Waste Amendments of 1984, the Commission shall complete a preliminary study concerning ground water contamination from hazardous and other solid waste and submit to the President and to the Congress a report containing the findings and conclusions of such preliminary study. The study shall be continued thereafter, and final findings and conclusions shall be incorporated as a separate chapter in the report required under paragraph (1). The preliminary study shall include an analysis of the extent of ground water contamination caused by hazardous and other solid waste, the regions and major water supplies most significantly affected by such contamination, and any recommendations of the Commission for preventive or remedial measures to protect human health and the environment from the effects of such contamination.

(g) The Commission shall cease to exist on January 1, 1987.

(h) Nothing in this section and no recommendation of the Commission shall affect any rights to quantities of water established under State law, interstate compact, or Supreme Court decree.

(i) There is authorized to be appropriated for the fiscal years 1985 through 1987 not to exceed \$7,000,000 to carry out this section.

#### NOTE

Title I of Public Law 100–556 (42 U.S.C. 6914b) provides:

#### **TITLE I—DEGRADABLE PLASTIC RING CARRIERS**

##### **SEC. 101. FINDINGS.**

The Congress finds that—

(1) plastic ring carrier devices have been found in large quantities in the marine environment;

(2) fish and wildlife have been known to have become entangled in plastic ring carriers;

(3) nondegradable plastic ring carrier devices can remain intact in the marine environment for decades, posing a threat to fish and wildlife; and

(4) 16 States have enacted laws requiring that plastic ring carrier devices be made from degradable material in order to reduce litter and to protect fish and wildlife.

##### **SEC. 102. DEFINITIONS.**

As used in this title—

(1) the term “regulated item” means any plastic ring carrier device that contains at least one hole greater than  $1\frac{3}{4}$  inches in diameter which is made, used, or designed for the purpose of packaging, transporting, or carrying multipackaged cans or bottles, and which is of a size, shape, design, or type capable, when discarded, of becoming entangled with fish or wildlife; and

(2) the term “naturally degradable material” means a material which, when discarded, will be reduced to environmentally benign subunits under the action of normal environmental forces, such as, among others, biological decomposition, photo-degradation, or hydrolysis.

##### **SEC. 103. REGULATION.**

Not later than 24 months after the date of the enactment of this title (unless the Administrator of the Environmental Protection Agency determines that it is not feasible or that the byproducts of degradable regulated items present a greater threat to the environment than nondegradable regulated items), the Administrator of the Environmental Protection Agency shall require, by regulation, that any regulated item intended for use in the United States shall be made of naturally degradable material which, when discarded, decomposes within a period established by such regulation. The period within which decomposition must occur after being discarded shall be the shortest period of time consistent with the intended use of the item and the physical integrity required for



such use. Such regulation shall allow a reasonable time for affected parties to come into compliance, including the use of existing inventories.

#### NOTE

Section 109 of Public Law 102-386 (42 U.S.C. 6908) provides:

#### SEC. 109. SMALL TOWN ENVIRONMENTAL PLANNING.

(a) ESTABLISHMENT.—The Administrator of the Environmental Protection Agency (hereafter referred to as the “Administrator”) shall establish a program to assist small communities in planning and financing environmental facilities. The program shall be known as the “Small Town Environmental Planning Program”.

(b) SMALL TOWN ENVIRONMENTAL PLANNING TASK FORCE.—(1) The Administrator shall establish a Small Town Environmental Planning Task Force which shall be composed of representatives of small towns from different areas of the United States, Federal and State governmental agencies, and public interest groups. The Administrator shall terminate the Task Force not later than 2 years after the establishment of the Task Force.

(2) The Task Force shall—

(A) identify regulations developed pursuant to Federal environmental laws which pose significant compliance problems for small towns;

(B) identify means to improve the working relationship between the Environmental Protection Agency (hereafter referred to as the Agency) and small towns;

(C) review proposed regulations for the protection of the environmental and public health and suggest revisions that could improve the ability of small towns to comply with such regulations;

(D) identify means to promote regionalization of environmental treatment systems and infrastructure serving small towns to improve the economic condition of such systems and infrastructure; and

(E) provide such other assistance to the Administrator as the Administrator deems appropriate.

(c) IDENTIFICATION OF ENVIRONMENTAL REQUIREMENTS.—(1) Not later than 6 months after the date of the enactment of this Act, the Administrator shall publish a list of requirements under Federal environmental and public health statutes (and the regulations developed pursuant to such statutes) applicable to small towns. Not less than annually, the Administrator shall make such additions and deletions to and from the list as the Administrator deems appropriate.

(2) The Administrator shall, as part of the Small Town Environmental Planning Program under this section, implement a program to notify small communities of the regulations identified under paragraph (1) and of future regulations and requirements through methods that the Administrator determines to be effective to provide information to the greatest number of small communities, including any of the following:

(A) Newspapers and other periodicals.

(B) Other news media.

(C) Trade, municipal, and other associations that the Administrator determines to be appropriate.

(D) Direct mail.

(d) SMALL TOWN OMBUDSMAN.—The Administrator shall establish and staff an Office of the Small Town Ombudsman. The Office shall provide assistance to small towns in connection with the Small Town Environmental Planning Program and other business with the Agency. Each regional office shall identify a small town contact. The Small Town Ombudsman and the regional contacts also may assist larger communities, but only if first priority is given to providing assistance to small towns.

(e) MULTI-MEDIA PERMITS.—(1) The Administrator shall conduct a study of establishing a multi-media permitting program for small towns. Such evaluation shall include an analysis of—

(A) environmental benefits and liabilities of a multi-media permitting program;

(B) the potential of using such a program to coordinate a small town's environmental and public health activities; and

(C) the legal barriers, if any, to the establishment of such a program.

(2) Within 3 years after the date of enactment of this Act, the Administrator shall report to Congress on the results of the evaluation performed in accordance with paragraph (1). Included in this report shall be a description of the activities conducted pursuant to subsections (a) through (d).

(f) DEFINITION.—For purposes of this section, the term “small town” means an incorporated or unincorporated community (as defined by the Administrator) with a population of less than 2,500 individuals.

(g) AUTHORIZATION.—There is authorized to be appropriated the sum of \$500,000 to implement this section.

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Public Law 95-95  
95th Congress

An Act

To amend the Clean Air Act, and for other purposes.

Aug. 7, 1977  
[H.R. 6161]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

Clean Air Act  
Amendments of  
1977.

SHORT TITLE AND TABLE OF CONTENTS

SECTION 1. This Act, together with the following table of contents, may be cited as the "Clean Air Act Amendments of 1977".

42 USC 7401  
note.\*

TABLE OF CONTENTS

Sec. 1. Short title and table of contents.

TITLE I—AMENDMENTS RELATING PRIMARILY TO TITLE I OF THE  
CLEAN AIR ACT

- Sec. 101. Training.
- Sec. 102. Waiver of maintenance of effort requirement.
- Sec. 103. Air quality control regions.
- Sec. 104. Criteria and control techniques.
- Sec. 105. Transportation planning and guidelines.
- Sec. 106. Air quality standards.
- Sec. 107. Energy or economic emergency authority.
- Sec. 108. Implementation plans.
- Sec. 109. New source standards of performance.
- Sec. 110. Standards for hazardous air pollutants.
- Sec. 111. Enforcement provisions.
- Sec. 112. Compliance orders (including coal conversion).
- Sec. 113. Notice to State in case of certain inspections, et cetera.
- Sec. 114. International air pollution.
- Sec. 115. President's air quality advisory board.
- Sec. 116. Control of pollution from Federal facilities.
- Sec. 117. Primary nonferrous smelter orders.
- Sec. 118. Noncompliance penalty.
- Sec. 119. Consultation.
- Sec. 120. Unregulated pollutants.
- Sec. 121. Stack heights.
- Sec. 122. Assurance of plan adequacy.
- Sec. 123. Interstate pollution abatement.
- Sec. 124. Public notification.
- Sec. 125. State boards.
- Sec. 126. Ozone protection.
- Sec. 127. Prevention of significant deterioration.
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- Sec. 129. Nonattainment areas.

TITLE II—AMENDMENTS RELATING PRIMARILY TO TITLE II OF THE  
CLEAN AIR ACT

- Sec. 201. Light-duty motor vehicle emissions.
- Sec. 202. Studies and research objective for oxides of nitrogen.
- Sec. 203. Study and report of fuel consumption.
- Sec. 204. State grants.
- Sec. 205. Cost of certain emission control parts.
- Sec. 206. Warranties.
- Sec. 207. California waiver.
- Sec. 208. Maintenance instructions.
- Sec. 209. Warranties and motor vehicle parts certification.
- Sec. 210. Repair at owner's place of choosing.
- Sec. 211. High altitude performance adjustments.

\*The Clean Air Act which was formerly classified to 42 USC 1857 *et seq.* has been transferred and is now classified to 42 USC 7401 *et seq.* Marginal citations to the U.S. Code for sections of the Clean Air Act in this slip law are to the new classifications. For former classifications of the Clean Air Act, consult the Tables volume of the U.S. Code.

## TABLE OF CONTENTS—Continued

TITLE II—AMENDMENTS RELATING PRIMARILY TO TITLE II OF THE  
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- Sec. 212. Dealer certification.
- Sec. 213. High altitude regulations.
- Sec. 214. Assurance of protection of public health and safety.
- Sec. 215. Fill pipe standards.
- Sec. 216. Onboard hydrocarbon technology.
- Sec. 217. Test procedures for measuring evaporative emissions.
- Sec. 218. Certain minor and technical and conforming amendments.
- Sec. 219. Tampering.
- Sec. 220. Testing by small manufacturers.
- Sec. 221. Parts standards; preemption of State law.
- Sec. 222. Testing of fuels and fuel additives.
- Sec. 223. Small refineries.
- Sec. 224. Emission standards for heavy duty vehicles or engines and certain other vehicles or engines.
- Sec. 225. Aircraft emissions standards.
- Sec. 226. Carbon monoxide intrusion into sustained use vehicles.

TITLE III—AMENDMENTS RELATING PRIMARILY TO TITLE III OF  
THE CLEAN AIR ACT

- Sec. 301. Definitions.
- Sec. 302. Emergency powers.
- Sec. 303. Citizen suits.
- Sec. 304. Civil litigation.
- Sec. 305. Administrative procedures and judicial review.
- Sec. 306. Sewage treatment grants.
- Sec. 307. Economic impact assessment.
- Sec. 308. Financial disclosure; conflicts of interest.
- Sec. 309. Air quality monitoring by environmental protection agency.
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- Sec. 311. Employment effects.
- Sec. 312. Employee protection.
- Sec. 313. National Commission on Air Quality.
- Sec. 314. Vapor recovery.
- Sec. 315. Authorizations.

## TITLE IV—GENERAL AND MISCELLANEOUS PROVISIONS

- Sec. 401. Basis of administrative standards.
- Sec. 402. Interagency cooperation on prevention of environmental cancer and heart and lung disease.
- Sec. 403. Studies.
- Sec. 404. Railroad emission study.
- Sec. 405. Study and report concerning economic approaches to controlling air pollution.
- Sec. 406. Savings provision; effective dates.

TITLE I—AMENDMENTS RELATING PRIMARILY TO  
TITLE I OF THE CLEAN AIR ACT

## TRAINING

Grants.  
42 USC 7403.

SEC. 101. (a) Section 103(b) of the Clean Air Act is amended by striking out paragraph (5), redesignating the following paragraphs accordingly, and adding the following at the end thereof: "In carrying out the provisions of subsection (a), the Administrator shall provide training for, and make training grants to, personnel of air pollution control agencies and other persons with suitable qualifications and make grants to such agencies, to other public or nonprofit private agencies, institutions, and organizations for the purposes stated in subsection (a) (5). Reasonable fees may be charged for such

Fees.



subpart D of the Clean Air Act) shall adopt and submit an implementation plan revision which meets the requirements of section 101 (a)(2)(I) and subpart D of the Clean Air Act not later than January 1, 1979. In the case of any State for which a plan revision adopted and submitted before such date has made the demonstration required under section 172(a)(2) of the Clean Air Act (respecting impossibility of attainment before 1983), such State shall adopt and submit to the Administrator a plan revision before July 1, 1982, which meets the requirements of section 172 (b) and (c) of such Act.

42 USC 7401.  
*Ante*, p. 746.  
 State plan  
 adoption,  
 submittal to  
 Administrator.

## TITLE II—AMENDMENTS RELATING PRIMARILY TO TITLE II OF THE CLEAN AIR ACT

### LIGHT-DUTY MOTOR VEHICLE EMISSIONS

SEC. 201. (a) Subparagraph (A) of section 202(b)(1) of the Clean Air Act is amended to read as follows:

Standards.  
 42 USC 7521.

“(A) The regulations under subsection (a) applicable to emissions of carbon monoxide and hydrocarbons from light-duty vehicles and engines manufactured during model years 1977 through 1979 shall contain standards which provide that such emissions from such vehicles and engines may not exceed 1.5 grams per vehicle mile of hydrocarbons and 15.0 grams per vehicle mile of carbon monoxide. The regulations under subsection (a) applicable to emissions of carbon monoxide from light-duty vehicles and engines manufactured during the model year 1980 shall contain standards which provide that such emissions may not exceed 7.0 grams per vehicle mile. The regulations under subsection (a) applicable to emissions of hydrocarbons from light-duty vehicles and engines manufactured during or after model year 1980 shall contain standards which require a reduction of at least 90 percent from emissions of such pollutant allowable under the standards under this section applicable to light-duty vehicles and engines manufactured in model year 1970. Unless waived as provided in paragraph (5), regulations under subsection (a) applicable to emissions of carbon monoxide from light-duty vehicles and engines manufactured during or after the model year 1981 shall contain standards which require a reduction of at least 90 percent from emissions of such pollutant allowable under the standards under this section applicable to light-duty vehicles and engines manufactured in model year 1970.”.

(b) Subparagraph (B) of section 202(b)(1) of such Act is amended to read as follows:

Standards.

“(B) The regulations under subsection (a) applicable to emissions of oxides of nitrogen from light-duty vehicles and engines manufactured during model years 1977 through 1980 shall contain standards which provide that such emissions from such vehicles and engines may not exceed 2.0 grams per vehicle mile. The regulations under subsection (a) applicable to emissions of oxides of nitrogen from light-duty vehicles and engines manufactured during the model year 1981 and thereafter shall contain standards which provide that such emissions from such vehicles and engines may not exceed 1.0 gram per vehicle mile. The Administrator shall prescribe standards in lieu of those required by the preceding sentence, which provide that emissions of oxides of nitrogen may not exceed 2.0 grams per vehicle mile for any light-duty vehicle manufactured during model years 1981 and 1982 by any manufacturer whose production, by corporate identity, for



	model year 1976 was less than three hundred thousand light-duty motor vehicles worldwide if the Administrator determines that—
	“(i) the ability of such manufacturer to meet emission standards in the 1975 and subsequent model years was, and is, primarily dependent upon technology developed by United States manufacturers and purchased from such manufacturers; and
	“(ii) such manufacturer lacks the financial resources and technological ability to develop such technology.”.
42 USC 7521.	(c) Section 202(b) of such Act is amended by striking out paragraph (5) thereof and substituting the following:
Waiver, application.	“(5) (A) At any time after August 31, 1978, any manufacturer may file an application requesting the waiver for model years 1981 and 1982 of the effective date of the emission standard required by paragraph (1) (A) for carbon monoxide applicable to any model (as determined by the Administration) of light-duty motor vehicles and engines manufactured in such model years. The Administrator shall make his determination with respect to any such application within sixty days after such application is filed with respect to such model. If he determines, in accordance with the provisions of this paragraph, that such waiver should be granted, he shall simultaneously with such determination prescribe by regulation emission standards which shall apply (in lieu of the standards required to be prescribed by paragraph (1) (A) of this subsection) to emissions of carbon monoxide from such model of vehicles or engines manufactured during model years 1981 and 1982.
Standards, regulations.	“(B) Any standards prescribed under this paragraph shall not permit emissions of carbon monoxide from vehicles and engines to which such waiver applies to exceed 7.0 grams per vehicle per mile.
Limitation.	“(C) Within sixty days after receipt of the application for any such waiver and after public hearing, the Administrator shall issue a decision granting or refusing such waiver. The Administrator may grant such waiver if he finds that protection of the public health does not require attainment of such 90 percent reduction for carbon monoxide for the model years to which such waiver applies in the case of such vehicles and engines and if he determines that—
Decision. Hearing.	“(i) such waiver is essential to the public interest or the public health and welfare of the United States;
	“(ii) all good faith efforts have been made to meet the standards established by this subsection;
	“(iii) the applicant has established that effective control technology, processes, operating methods, or other alternatives are not available or have not been available with respect to the model in question for a sufficient period of time to achieve compliance prior to the effective date of such standards, taking into consideration costs, driveability, and fuel economy; and
	“(iv) studies and investigations of the National Academy of Sciences conducted pursuant to subsection (c) and other information available to him has not indicated that technology, processes, or other alternatives are available (within the meaning of clause (iii)) to meet such standards.
Waiver, petition. Notice and hearing.	“(6) (A) Upon the petition of any manufacturer, the Administrator, after notice and opportunity for public hearing, may waive the standard required under subparagraph (B) of paragraph (1) to not exceed 1.5 grams of oxides of nitrogen per vehicle mile for any class or category of light-duty vehicles or engines manufactured by such manufacturer during any period of up to four model years beginning

after the model year 1980 if the manufacturer demonstrates that such waiver is necessary to permit the use of an innovative power train technology, or innovative emission control device or system, in such class or category of vehicles or engines and that such technology or system was not utilized by more than 1 percent of the light-duty vehicles sold in the United States in the 1975 model year. Such waiver may be granted only if the Administrator determines—

“(i) that such waiver would not endanger public health,

“(ii) that there is a substantial likelihood that the vehicles or engines will be able to comply with the applicable standard under this section at the expiration of the waiver, and

“(iii) that the technology or system has a potential for long-term air quality benefit and has the potential to meet or exceed the average fuel economy standard applicable under the Energy Policy and Conservation Act upon the expiration of the waiver.

No waiver under this subparagraph granted to any manufacturer shall apply to more than 5 percent of such manufacturer's production or more than fifty thousand vehicles or engines, whichever is greater.

“(B) Upon the petition of any manufacturer, the Administrator, after notice and opportunity for public hearing, may waive the standard required under subparagraph (B) of paragraph (1) to not to exceed 1.5 grams of oxides of nitrogen per vehicle mile for any class or category of light-duty vehicles and engines manufactured by such manufacturer during the four model year period beginning with the model year 1981 if the manufacturer can show that such waiver is necessary to permit the use of diesel engine technology in such class or category of vehicles or engines. Such waiver may be granted if the Administrator determines—

“(i) that such waiver will not endanger public health,

“(ii) that such waiver will result in significant fuel savings at least equal to the fuel economy standard applicable in each year under the Energy Policy and Conservation Act, and

“(iii) that the technology has a potential for long-term air quality benefit and has the potential to meet or exceed the average fuel economy standard applicable under the Energy Policy and Conservation Act at the expiration of the waiver.”.

42 USC 6201  
note.  
Applicability.

Waiver, petition.  
Notice and  
hearing.

#### STUDIES AND RESEARCH OBJECTIVE FOR OXIDES OF NITROGEN

SEC. 202. (a) The Administrator of the Environmental Protection Agency shall conduct a study of the public health implications of attaining an emission standard on oxides of nitrogen from light duty vehicles of 0.4 gram per vehicle mile, the cost and technological capability of attaining such standard, and the need for such a standard to protect public health or welfare. The Administrator shall submit a report of such study to the Congress, together with recommendations not later than July 1, 1980.

(b) Section 202(b) of the Clean Air Act is amended by adding a new paragraph (7) as follows:

“(7) The Congress hereby declares and establishes as a research objective, the development of propulsion systems and emission control technology to achieve standards which represent a reduction of at least 90 per centum from the average emissions of oxides of nitrogen actually measured from light duty motor vehicles manufactured in model year 1971 not subject to any Federal or State emission standard

42 USC 7521  
note.

Report to  
Congress,  
recommendations.  
*Ante*, p. 752.

Public Law 101-549  
101st Congress

An Act

To amend the Clean Air Act to provide for attainment and maintenance of health protective national ambient air quality standards, and for other purposes.

Nov. 15, 1990  
[S. 1630]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

Air pollution  
control.

# **TITLE I—PROVISIONS FOR ATTAINMENT AND MAINTENANCE OF NATIONAL AM- BIENT AIR QUALITY STANDARDS**

- Sec. 101. General planning requirements.
- Sec. 102. General provisions for nonattainment areas.
- Sec. 103. Additional provisions for ozone nonattainment areas.
- Sec. 104. Additional provisions for carbon monoxide nonattainment areas.
- Sec. 105. Additional provisions for particulate matter (PM-10) nonattainment areas.
- Sec. 106. Additional provisions for areas designated nonattainment for sulfur oxides, nitrogen dioxide, and lead.
- Sec. 107. Provisions related to Indian tribes.
- Sec. 108. Miscellaneous provisions.
- Sec. 109. Interstate pollution.
- Sec. 110. Conforming amendments.
- Sec. 111. Transportation system impacts on clean air.

## **SEC. 101. GENERAL PLANNING REQUIREMENTS.**

Inter-  
governmental  
relations.

(a) **AREA DESIGNATIONS.**—Section 107(d) of the Clean Air Act (42 U.S.C. 7407(d)) is amended to read as follows:

“(d) **DESIGNATIONS.**—

“(1) **DESIGNATIONS GENERALLY.**—

“(A) **SUBMISSION BY GOVERNORS OF INITIAL DESIGNATIONS FOLLOWING PROMULGATION OF NEW OR REVISED STANDARDS.**—

By such date as the Administrator may reasonably require, but not later than 1 year after promulgation of a new or revised national ambient air quality standard for any pollutant under section 109, the Governor of each State shall (and at any other time the Governor of a State deems appropriate the Governor may) submit to the Administrator a list of all areas (or portions thereof) in the State, designating as—

“(i) nonattainment, any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant,

“(ii) attainment, any area (other than an area identified in clause (i)) that meets the national primary or secondary ambient air quality standard for the pollutant, or

“(iii) unclassifiable, any area that cannot be classified on the basis of available information as meeting or not

## SEC. 223. NEW TITLE II DEFINITIONS.

(a) **ADDITIONAL DEFINITIONS.**—Section 216 of the Clean Air Act (42 U.S.C. 7550) is amended by adding the following at the end thereof:

"(7) **VEHICLE CURB WEIGHT, GROSS VEHICLE WEIGHT RATING, LIGHT-DUTY TRUCK, LIGHT-DUTY VEHICLE, AND LOADED VEHICLE WEIGHT.**—The terms 'vehicle curb weight', 'gross vehicle weight rating' (GVWR), 'light-duty truck' (LDT), light-duty vehicle, and 'loaded vehicle weight' (LVW) have the meaning provided in regulations promulgated by the Administrator and in effect as of the enactment of the Clean Air Act Amendments of 1990. The abbreviations in parentheses corresponding to any term referred to in this paragraph shall have the same meaning as the corresponding term.

"(8) **TEST WEIGHT.**—The term 'test weight' and the abbreviation 'tw' mean the vehicle curb weight added to the gross vehicle weight rating (gvwr) and divided by 2.

"(9) **MOTOR VEHICLE OR ENGINE PART MANUFACTURER.**—The term 'motor vehicle or engine part manufacturer' as used in sections 207 and 208 means any person engaged in the manufacturing, assembling or rebuilding of any device, system, part, component or element of design which is installed in or on motor vehicles or motor vehicle engines.

"(10) **NONROAD ENGINE.**—The term 'nonroad engine' means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 111 or section 202.

"(11) **NONROAD VEHICLE.**—The term 'nonroad vehicle' means a vehicle that is powered by a nonroad engine and that is not a motor vehicle or a vehicle used solely for competition."

(b) **DEFINITION OF MANUFACTURER.**—Paragraph (1) of section 216 of the Clean Air Act (42 U.S.C. 7550) is amended by striking out "new motor vehicles or new motor vehicle engines" every place it occurs and inserting "new motor vehicles, new motor vehicle engines, new nonroad vehicles or new nonroad engines".

## SEC. 224. HIGH ALTITUDE TESTING.

Section 215 of the Clean Air Act (42 U.S.C. 7549) is amended by adding the following at the end thereof:

"(e) **HIGH ALTITUDE TESTING.**—(1) The Administrator shall promptly establish at least one testing center (in addition to the testing centers existing on the date of the enactment of the Clean Air Act Amendments of 1990) located at a site that represents high altitude conditions, to ascertain in a reasonable manner whether, when in actual use throughout their useful life (as determined under section 202(d)), each class or category of vehicle and engines to which regulations under section 202 apply conforms to the emissions standards established by such regulations. For purposes of this subsection, the term 'high altitude conditions' refers to high altitude as defined in regulations of the Administrator in effect as of the date of the enactment of the Clean Air Act Amendments of 1990.

"(2) The Administrator, in cooperation with the Secretary of Energy and the Administrator of the Urban Mass Transportation Administration, and such other agencies as the Administrator deems appropriate, shall establish a research and technology assessment center to provide for the development and evaluation of less-polluting heavy-duty engines and fuels for use in buses, heavy-duty

Motor vehicles.  
Establishment.

Establishment.



Public Law 110–343  
110th Congress

An Act

To provide authority for the Federal Government to purchase and insure certain types of troubled assets for the purposes of providing stability to and preventing disruption in the economy and financial system and protecting taxpayers, to amend the Internal Revenue Code of 1986 to provide incentives for energy production and conservation, to extend certain expiring provisions, to provide individual income tax relief, and for other purposes.

Oct. 3, 2008  
[H.R. 1424]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**DIVISION A—EMERGENCY ECONOMIC  
STABILIZATION**

Emergency  
Economic  
Stabilization Act  
of 2008.

**SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.**

(a) **SHORT TITLE.**—This division may be cited as the “Emergency Economic Stabilization Act of 2008”.

(b) **TABLE OF CONTENTS.**—The table of contents for this division is as follows:

12 USC 5201  
note.

- Sec. 1. Short title and table of contents.
- Sec. 2. Purposes.
- Sec. 3. Definitions.

**TITLE I—TROUBLED ASSETS RELIEF PROGRAM**

- Sec. 101. Purchases of troubled assets.
- Sec. 102. Insurance of troubled assets.
- Sec. 103. Considerations.
- Sec. 104. Financial Stability Oversight Board.
- Sec. 105. Reports.
- Sec. 106. Rights; management; sale of troubled assets; revenues and sale proceeds.
- Sec. 107. Contracting procedures.
- Sec. 108. Conflicts of interest.
- Sec. 109. Foreclosure mitigation efforts.
- Sec. 110. Assistance to homeowners.
- Sec. 111. Executive compensation and corporate governance.
- Sec. 112. Coordination with foreign authorities and central banks.
- Sec. 113. Minimization of long-term costs and maximization of benefits for taxpayers.
- Sec. 114. Market transparency.
- Sec. 115. Graduated authorization to purchase.
- Sec. 116. Oversight and audits.
- Sec. 117. Study and report on margin authority.
- Sec. 118. Funding.
- Sec. 119. Judicial review and related matters.
- Sec. 120. Termination of authority.
- Sec. 121. Special Inspector General for the Troubled Asset Relief Program.
- Sec. 122. Increase in statutory limit on the public debt.
- Sec. 123. Credit reform.
- Sec. 124. HOPE for Homeowners amendments.
- Sec. 125. Congressional Oversight Panel.



- Sec. 126. FDIC authority.
- Sec. 127. Cooperation with the FBI.
- Sec. 128. Acceleration of effective date.
- Sec. 129. Disclosures on exercise of loan authority.
- Sec. 130. Technical corrections.
- Sec. 131. Exchange Stabilization Fund reimbursement.
- Sec. 132. Authority to suspend mark-to-market accounting.
- Sec. 133. Study on mark-to-market accounting.
- Sec. 134. Recoupment.
- Sec. 135. Preservation of authority.
- Sec. 136. Temporary increase in deposit and share insurance coverage.

#### TITLE II—BUDGET-RELATED PROVISIONS

- Sec. 201. Information for congressional support agencies.
- Sec. 202. Reports by the Office of Management and Budget and the Congressional Budget Office.
- Sec. 203. Analysis in President's Budget.
- Sec. 204. Emergency treatment.

#### TITLE III—TAX PROVISIONS

- Sec. 301. Gain or loss from sale or exchange of certain preferred stock.
- Sec. 302. Special rules for tax treatment of executive compensation of employers participating in the troubled assets relief program.
- Sec. 303. Extension of exclusion of income from discharge of qualified principal residence indebtedness.

12 USC 5201.

### SEC. 2. PURPOSES.

The purposes of this Act are—

(1) to immediately provide authority and facilities that the Secretary of the Treasury can use to restore liquidity and stability to the financial system of the United States; and

(2) to ensure that such authority and such facilities are used in a manner that—

(A) protects home values, college funds, retirement accounts, and life savings;

(B) preserves homeownership and promotes jobs and economic growth;

(C) maximizes overall returns to the taxpayers of the United States; and

(D) provides public accountability for the exercise of such authority.

12 USC 5202.

### SEC. 3. DEFINITIONS.

For purposes of this Act, the following definitions shall apply:

(1) APPROPRIATE COMMITTEES OF CONGRESS.—The term “appropriate committees of Congress” means—

(A) the Committee on Banking, Housing, and Urban Affairs, the Committee on Finance, the Committee on the Budget, and the Committee on Appropriations of the Senate; and

(B) the Committee on Financial Services, the Committee on Ways and Means, the Committee on the Budget, and the Committee on Appropriations of the House of Representatives.

(2) BOARD.—The term “Board” means the Board of Governors of the Federal Reserve System.

(3) CONGRESSIONAL SUPPORT AGENCIES.—The term “congressional support agencies” means the Congressional Budget Office and the Joint Committee on Taxation.

(4) CORPORATION.—The term “Corporation” means the Federal Deposit Insurance Corporation.

(5) FINANCIAL INSTITUTION.—The term “financial institution” means any institution, including, but not limited to, any

**SEC. 303. EXTENSION OF EXCLUSION OF INCOME FROM DISCHARGE OF QUALIFIED PRINCIPAL RESIDENCE INDEBTEDNESS.**

(a) **EXTENSION.**—Subparagraph (E) of section 108(a)(1) of the Internal Revenue Code of 1986 is amended by striking “January 1, 2010” and inserting “January 1, 2013”. 26 USC 108.

(b) **EFFECTIVE DATE.**—The amendment made by this section shall apply to discharges of indebtedness occurring on or after January 1, 2010. 26 USC 108 note.

## **DIVISION B—ENERGY IMPROVEMENT AND EXTENSION ACT OF 2008**

**SEC. 1. SHORT TITLE, ETC.**

(a) **SHORT TITLE.**—This division may be cited as the “Energy Improvement and Extension Act of 2008”.

(b) **REFERENCE.**—Except as otherwise expressly provided, whenever in this division an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Internal Revenue Code of 1986. 26 USC 1 *et al.*

(c) **TABLE OF CONTENTS.**—The table of contents for this division is as follows:

Sec. 1. Short title, etc.

### **TITLE I—ENERGY PRODUCTION INCENTIVES**

#### **Subtitle A—Renewable Energy Incentives**

- Sec. 101. Renewable energy credit.
- Sec. 102. Production credit for electricity produced from marine renewables.
- Sec. 103. Energy credit.
- Sec. 104. Energy credit for small wind property.
- Sec. 105. Energy credit for geothermal heat pump systems.
- Sec. 106. Credit for residential energy efficient property.
- Sec. 107. New clean renewable energy bonds.
- Sec. 108. Credit for steel industry fuel.
- Sec. 109. Special rule to implement FERC and State electric restructuring policy.

#### **Subtitle B—Carbon Mitigation and Coal Provisions**

- Sec. 111. Expansion and modification of advanced coal project investment credit.
- Sec. 112. Expansion and modification of coal gasification investment credit.
- Sec. 113. Temporary increase in coal excise tax; funding of Black Lung Disability Trust Fund.
- Sec. 114. Special rules for refund of the coal excise tax to certain coal producers and exporters.
- Sec. 115. Tax credit for carbon dioxide sequestration.
- Sec. 116. Certain income and gains relating to industrial source carbon dioxide treated as qualifying income for publicly traded partnerships.
- Sec. 117. Carbon audit of the tax code.

### **TITLE II—TRANSPORTATION AND DOMESTIC FUEL SECURITY PROVISIONS**

- Sec. 201. Inclusion of cellulosic biofuel in bonus depreciation for biomass ethanol plant property.
- Sec. 202. Credits for biodiesel and renewable diesel.
- Sec. 203. Clarification that credits for fuel are designed to provide an incentive for United States production.
- Sec. 204. Extension and modification of alternative fuel credit.
- Sec. 205. Credit for new qualified plug-in electric drive motor vehicles.
- Sec. 206. Exclusion from heavy truck tax for idling reduction units and advanced insulation.
- Sec. 207. Alternative fuel vehicle refueling property credit.
- Sec. 208. Certain income and gains relating to alcohol fuels and mixtures, biodiesel fuels and mixtures, and alternative fuels and mixtures treated as qualifying income for publicly traded partnerships.

- Sec. 209. Extension and modification of election to expense certain refineries.
- Sec. 210. Extension of suspension of taxable income limit on percentage depletion for oil and natural gas produced from marginal properties.
- Sec. 211. Transportation fringe benefit to bicycle commuters.

#### TITLE III—ENERGY CONSERVATION AND EFFICIENCY PROVISIONS

- Sec. 301. Qualified energy conservation bonds.
- Sec. 302. Credit for nonbusiness energy property.
- Sec. 303. Energy efficient commercial buildings deduction.
- Sec. 304. New energy efficient home credit.
- Sec. 305. Modifications of energy efficient appliance credit for appliances produced after 2007.
- Sec. 306. Accelerated recovery period for depreciation of smart meters and smart grid systems.
- Sec. 307. Qualified green building and sustainable design projects.
- Sec. 308. Special depreciation allowance for certain reuse and recycling property.

#### TITLE IV—REVENUE PROVISIONS

- Sec. 401. Limitation of deduction for income attributable to domestic production of oil, gas, or primary products thereof.
- Sec. 402. Elimination of the different treatment of foreign oil and gas extraction income and foreign oil related income for purposes of the foreign tax credit.
- Sec. 403. Broker reporting of customer's basis in securities transactions.
- Sec. 404. 0.2 percent FUTA surtax.
- Sec. 405. Increase and extension of Oil Spill Liability Trust Fund tax.

## TITLE I—ENERGY PRODUCTION INCENTIVES

### Subtitle A—Renewable Energy Incentives

#### SEC. 101. RENEWABLE ENERGY CREDIT.

##### (a) EXTENSION OF CREDIT.—

26 USC 45.

(1) 1-YEAR EXTENSION FOR WIND AND REFINED COAL FACILITIES.—Paragraphs (1) and (8) of section 45(d) are each amended by striking “January 1, 2009” and inserting “January 1, 2010”.

(2) 2-YEAR EXTENSION FOR CERTAIN OTHER FACILITIES.—Each of the following provisions of section 45(d) is amended by striking “January 1, 2009” and inserting “January 1, 2011”:

- (A) Clauses (i) and (ii) of paragraph (2)(A).
- (B) Clauses (i)(I) and (ii) of paragraph (3)(A).
- (C) Paragraph (4).
- (D) Paragraph (5).
- (E) Paragraph (6).
- (F) Paragraph (7).
- (G) Subparagraphs (A) and (B) of paragraph (9).

##### (b) MODIFICATION OF REFINED COAL AS A QUALIFIED ENERGY RESOURCE.—

(1) ELIMINATION OF INCREASED MARKET VALUE TEST.—Section 45(c)(7)(A)(i) (defining refined coal), as amended by section 108, is amended—

- (A) by striking subclause (IV),
- (B) by adding “and” at the end of subclause (II), and
- (C) by striking “, and” at the end of subclause (III) and inserting a period.

(2) INCREASE IN REQUIRED EMISSION REDUCTION.—Section 45(c)(7)(B) (defining qualified emission reduction) is amended by inserting “at least 40 percent of the emissions of” after “nitrogen oxide and”.

(1) IN GENERAL.—Subsection (d) of section 6426, as amended by subsection (a), is amended by redesignating paragraph (4) as paragraph (5) and by inserting after paragraph (3) the following new paragraph:

“(4) CARBON CAPTURE REQUIREMENT.—

“(A) IN GENERAL.—The requirements of this paragraph are met if the fuel is certified, under such procedures as required by the Secretary, as having been derived from coal produced at a gasification facility which separates and sequesters not less than the applicable percentage of such facility’s total carbon dioxide emissions.

Certification.

“(B) APPLICABLE PERCENTAGE.—For purposes of subparagraph (A), the applicable percentage is—

“(i) 50 percent in the case of fuel produced after September 30, 2009, and on or before December 30, 2009, and

“(ii) 75 percent in the case of fuel produced after December 30, 2009.”.

(2) CONFORMING AMENDMENT.—Subparagraph (E) of section 6426(d)(2) is amended by inserting “which meets the requirements of paragraph (4) and which is” after “any liquid fuel”.

26 USC 6426.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to fuel sold or used after the date of the enactment of this Act.

26 USC 6426 note.

**SEC. 205. CREDIT FOR NEW QUALIFIED PLUG-IN ELECTRIC DRIVE MOTOR VEHICLES.**

(a) PLUG-IN ELECTRIC DRIVE MOTOR VEHICLE CREDIT.—Subpart B of part IV of subchapter A of chapter 1 (relating to other credits) is amended by adding at the end the following new section:

**“SEC. 30D. NEW QUALIFIED PLUG-IN ELECTRIC DRIVE MOTOR VEHICLES.**

“(a) ALLOWANCE OF CREDIT.—

“(1) IN GENERAL.—There shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the applicable amount with respect to each new qualified plug-in electric drive motor vehicle placed in service by the taxpayer during the taxable year.

“(2) APPLICABLE AMOUNT.—For purposes of paragraph (1), the applicable amount is sum of—

“(A) \$2,500, plus

“(B) \$417 for each kilowatt hour of traction battery capacity in excess of 4 kilowatt hours.

“(b) LIMITATIONS.—

“(1) LIMITATION BASED ON WEIGHT.—The amount of the credit allowed under subsection (a) by reason of subsection (a)(2) shall not exceed—

“(A) \$7,500, in the case of any new qualified plug-in electric drive motor vehicle with a gross vehicle weight rating of not more than 10,000 pounds,

“(B) \$10,000, in the case of any new qualified plug-in electric drive motor vehicle with a gross vehicle weight rating of more than 10,000 pounds but not more than 14,000 pounds,

“(C) \$12,500, in the case of any new qualified plug-in electric drive motor vehicle with a gross vehicle weight

rating of more than 14,000 pounds but not more than 26,000 pounds, and

“(D) \$15,000, in the case of any new qualified plug-in electric drive motor vehicle with a gross vehicle weight rating of more than 26,000 pounds.

“(2) LIMITATION ON NUMBER OF PASSENGER VEHICLES AND LIGHT TRUCKS ELIGIBLE FOR CREDIT.—

“(A) IN GENERAL.—In the case of a new qualified plug-in electric drive motor vehicle sold during the phaseout period, only the applicable percentage of the credit otherwise allowable under subsection (a) shall be allowed.

“(B) PHASEOUT PERIOD.—For purposes of this subsection, the phaseout period is the period beginning with the second calendar quarter following the calendar quarter which includes the first date on which the total number of such new qualified plug-in electric drive motor vehicles sold for use in the United States after December 31, 2008, is at least 250,000.

“(C) APPLICABLE PERCENTAGE.—For purposes of subparagraph (A), the applicable percentage is—

“(i) 50 percent for the first 2 calendar quarters of the phaseout period,

“(ii) 25 percent for the 3d and 4th calendar quarters of the phaseout period, and

“(iii) 0 percent for each calendar quarter thereafter.

“(D) CONTROLLED GROUPS.—Rules similar to the rules of section 30B(f)(4) shall apply for purposes of this subsection.

“(c) NEW QUALIFIED PLUG-IN ELECTRIC DRIVE MOTOR VEHICLE.—For purposes of this section, the term ‘new qualified plug-in electric drive motor vehicle’ means a motor vehicle—

“(1) which draws propulsion using a traction battery with at least 4 kilowatt hours of capacity,

“(2) which uses an offboard source of energy to recharge such battery,

“(3) which, in the case of a passenger vehicle or light truck which has a gross vehicle weight rating of not more than 8,500 pounds, has received a certificate of conformity under the Clean Air Act and meets or exceeds the equivalent qualifying California low emission vehicle standard under section 243(e)(2) of the Clean Air Act for that make and model year, and

“(A) in the case of a vehicle having a gross vehicle weight rating of 6,000 pounds or less, the Bin 5 Tier II emission standard established in regulations prescribed by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act for that make and model year vehicle, and

“(B) in the case of a vehicle having a gross vehicle weight rating of more than 6,000 pounds but not more than 8,500 pounds, the Bin 8 Tier II emission standard which is so established,

“(4) the original use of which commences with the taxpayer,

“(5) which is acquired for use or lease by the taxpayer and not for resale, and

“(6) which is made by a manufacturer.

“(d) APPLICATION WITH OTHER CREDITS.—



“(1) BUSINESS CREDIT TREATED AS PART OF GENERAL BUSINESS CREDIT.—So much of the credit which would be allowed under subsection (a) for any taxable year (determined without regard to this subsection) that is attributable to property of a character subject to an allowance for depreciation shall be treated as a credit listed in section 38(b) for such taxable year (and not allowed under subsection (a)).

“(2) PERSONAL CREDIT.—

“(A) IN GENERAL.—For purposes of this title, the credit allowed under subsection (a) for any taxable year (determined after application of paragraph (1)) shall be treated as a credit allowable under subpart A for such taxable year.

“(B) LIMITATION BASED ON AMOUNT OF TAX.—In the case of a taxable year to which section 26(a)(2) does not apply, the credit allowed under subsection (a) for any taxable year (determined after application of paragraph (1)) shall not exceed the excess of—

“(i) the sum of the regular tax liability (as defined in section 26(b)) plus the tax imposed by section 55, over

“(ii) the sum of the credits allowable under subpart A (other than this section and sections 23 and 25D) and section 27 for the taxable year.

“(e) OTHER DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

“(1) MOTOR VEHICLE.—The term ‘motor vehicle’ has the meaning given such term by section 30(c)(2).

“(2) OTHER TERMS.—The terms ‘passenger automobile’, ‘light truck’, and ‘manufacturer’ have the meanings given such terms in regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of the administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.).

“(3) TRACTION BATTERY CAPACITY.—Traction battery capacity shall be measured in kilowatt hours from a 100 percent state of charge to a zero percent state of charge.

“(4) REDUCTION IN BASIS.—For purposes of this subtitle, the basis of any property for which a credit is allowable under subsection (a) shall be reduced by the amount of such credit so allowed.

“(5) NO DOUBLE BENEFIT.—The amount of any deduction or other credit allowable under this chapter for a new qualified plug-in electric drive motor vehicle shall be reduced by the amount of credit allowed under subsection (a) for such vehicle for the taxable year.

“(6) PROPERTY USED BY TAX-EXEMPT ENTITY.—In the case of a vehicle the use of which is described in paragraph (3) or (4) of section 50(b) and which is not subject to a lease, the person who sold such vehicle to the person or entity using such vehicle shall be treated as the taxpayer that placed such vehicle in service, but only if such person clearly discloses to such person or entity in a document the amount of any credit allowable under subsection (a) with respect to such vehicle (determined without regard to subsection (b)(2)).

“(7) PROPERTY USED OUTSIDE UNITED STATES, ETC., NOT QUALIFIED.—No credit shall be allowable under subsection (a)

Regulations.

with respect to any property referred to in section 50(b)(1) or with respect to the portion of the cost of any property taken into account under section 179.

“(8) RECAPTURE.—The Secretary shall, by regulations, provide for recapturing the benefit of any credit allowable under subsection (a) with respect to any property which ceases to be property eligible for such credit (including recapture in the case of a lease period of less than the economic life of a vehicle).

“(9) ELECTION TO NOT TAKE CREDIT.—No credit shall be allowed under subsection (a) for any vehicle if the taxpayer elects not to have this section apply to such vehicle.

“(10) INTERACTION WITH AIR QUALITY AND MOTOR VEHICLE SAFETY STANDARDS.—Unless otherwise provided in this section, a motor vehicle shall not be considered eligible for a credit under this section unless such vehicle is in compliance with—

“(A) the applicable provisions of the Clean Air Act for the applicable make and model year of the vehicle (or applicable air quality provisions of State law in the case of a State which has adopted such provision under a waiver under section 209(b) of the Clean Air Act), and

“(B) the motor vehicle safety provisions of sections 30101 through 30169 of title 49, United States Code.

“(f) REGULATIONS.—

“(1) IN GENERAL.—Except as provided in paragraph (2), the Secretary shall promulgate such regulations as necessary to carry out the provisions of this section.

“(2) COORDINATION IN PRESCRIPTION OF CERTAIN REGULATIONS.—The Secretary of the Treasury, in coordination with the Secretary of Transportation and the Administrator of the Environmental Protection Agency, shall prescribe such regulations as necessary to determine whether a motor vehicle meets the requirements to be eligible for a credit under this section.

“(g) TERMINATION.—This section shall not apply to property purchased after December 31, 2014.”.

26 USC 30B.

(b) COORDINATION WITH ALTERNATIVE MOTOR VEHICLE CREDIT.—Section 30B(d)(3) is amended by adding at the end the following new subparagraph:

“(D) EXCLUSION OF PLUG-IN VEHICLES.—Any vehicle with respect to which a credit is allowable under section 30D (determined without regard to subsection (d) thereof) shall not be taken into account under this section.”.

(c) CREDIT MADE PART OF GENERAL BUSINESS CREDIT.—Section 38(b), as amended by this Act, is amended by striking “plus” at the end of paragraph (33), by striking the period at the end of paragraph (34) and inserting “plus”, and by adding at the end the following new paragraph:

“(35) the portion of the new qualified plug-in electric drive motor vehicle credit to which section 30D(d)(1) applies.”.

(d) CONFORMING AMENDMENTS.—

(1)(A) Section 24(b)(3)(B), as amended by section 106, is amended by striking “and 25D” and inserting “25D, and 30D”.

(B) Section 25(e)(1)(C)(ii) is amended by inserting “30D,” after “25D,”.

(C) Section 25B(g)(2), as amended by section 106, is amended by striking “and 25D” and inserting “, 25D, and 30D”.

(D) Section 26(a)(1), as amended by section 106, is amended by striking “and 25D” and inserting “25D, and 30D”.

(E) Section 1400C(d)(2) is amended by striking “and 25D” and inserting “25D, and 30D”. 26 USC 1400C.

(2) Section 1016(a) is amended by striking “and” at the end of paragraph (35), by striking the period at the end of paragraph (36) and inserting “, and”, and by adding at the end the following new paragraph:

“(37) to the extent provided in section 30D(e)(4).”.

(3) Section 6501(m) is amended by inserting “30D(e)(9),” after “30C(e)(5).”.

(4) The table of sections for subpart B of part IV of subchapter A of chapter 1 is amended by adding at the end the following new item:

“Sec. 30D. New qualified plug-in electric drive motor vehicles.”.

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years beginning after December 31, 2008.

Applicability.  
26 USC 24 note.

(f) APPLICATION OF EGTRRA SUNSET.—The amendment made by subsection (d)(1)(A) shall be subject to title IX of the Economic Growth and Tax Relief Reconciliation Act of 2001 in the same manner as the provision of such Act to which such amendment relates.

26 USC 24 note.

**SEC. 206. EXCLUSION FROM HEAVY TRUCK TAX FOR IDLING REDUCTION UNITS AND ADVANCED INSULATION.**

(a) IN GENERAL.—Section 4053 is amended by adding at the end the following new paragraphs:

“(9) IDLING REDUCTION DEVICE.—Any device or system of devices which—

“(A) is designed to provide to a vehicle those services (such as heat, air conditioning, or electricity) that would otherwise require the operation of the main drive engine while the vehicle is temporarily parked or remains stationary using one or more devices affixed to a tractor, and

“(B) is determined by the Administrator of the Environmental Protection Agency, in consultation with the Secretary of Energy and the Secretary of Transportation, to reduce idling of such vehicle at a motor vehicle rest stop or other location where such vehicles are temporarily parked or remain stationary.

“(10) ADVANCED INSULATION.—Any insulation that has an R value of not less than R35 per inch.”.

(b) EFFECTIVE DATE.—The amendment made by this section shall apply to sales or installations after the date of the enactment of this Act.

Applicability.  
26 USC 4053  
note.

**SEC. 207. ALTERNATIVE FUEL VEHICLE REFUELING PROPERTY CREDIT.**

(a) EXTENSION OF CREDIT.—Paragraph (2) of section 30C(g) is amended by striking “December 31, 2009” and inserting “December 31, 2010”.

(b) INCLUSION OF ELECTRICITY AS A CLEAN-BURNING FUEL.—Section 30C(c)(2) is amended by adding at the end the following new subparagraph:

“(C) Electricity.”.

Public Law 111–5  
111th Congress

An Act

Making supplemental appropriations for job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and State and local fiscal stabilization, for the fiscal year ending September 30, 2009, and for other purposes.

Feb. 17, 2009  
[H.R. 1]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “American Recovery and Reinvestment Act of 2009”.

American  
Recovery and  
Reinvestment  
Act of 2009.  
26 USC 1 note.

**SEC. 2. TABLE OF CONTENTS.**

The table of contents for this Act is as follows:

DIVISION A—APPROPRIATIONS PROVISIONS

TITLE I—AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES  
TITLE II—COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES  
TITLE III—DEPARTMENT OF DEFENSE  
TITLE IV—ENERGY AND WATER DEVELOPMENT  
TITLE V—FINANCIAL SERVICES AND GENERAL GOVERNMENT  
TITLE VI—DEPARTMENT OF HOMELAND SECURITY  
TITLE VII—INTERIOR, ENVIRONMENT, AND RELATED AGENCIES  
TITLE VIII—DEPARTMENTS OF LABOR, HEALTH AND HUMAN SERVICES, AND EDUCATION, AND RELATED AGENCIES  
TITLE IX—LEGISLATIVE BRANCH  
TITLE X—MILITARY CONSTRUCTION AND VETERANS AFFAIRS AND RELATED AGENCIES  
TITLE XI—STATE, FOREIGN OPERATIONS, AND RELATED PROGRAMS  
TITLE XII—TRANSPORTATION, HOUSING AND URBAN DEVELOPMENT, AND RELATED AGENCIES  
TITLE XIII—HEALTH INFORMATION TECHNOLOGY  
TITLE XIV—STATE FISCAL STABILIZATION FUND  
TITLE XV—ACCOUNTABILITY AND TRANSPARENCY  
TITLE XVI—GENERAL PROVISIONS—THIS ACT

DIVISION B—TAX, UNEMPLOYMENT, HEALTH, STATE FISCAL RELIEF, AND OTHER PROVISIONS

TITLE I—TAX PROVISIONS  
TITLE II—ASSISTANCE FOR UNEMPLOYED WORKERS AND STRUGGLING FAMILIES  
TITLE III—PREMIUM ASSISTANCE FOR COBRA BENEFITS  
TITLE IV—MEDICARE AND MEDICAID HEALTH INFORMATION TECHNOLOGY; MISCELLANEOUS MEDICARE PROVISIONS  
TITLE V—STATE FISCAL RELIEF  
TITLE VI—BROADBAND TECHNOLOGY OPPORTUNITIES PROGRAM  
TITLE VII—LIMITS ON EXECUTIVE COMPENSATION

**SEC. 3. PURPOSES AND PRINCIPLES.**

26 USC 1 note.

(a) STATEMENT OF PURPOSES.—The purposes of this Act include the following:

(1) To preserve and create jobs and promote economic recovery.

(2) To assist those most impacted by the recession.

(3) To provide investments needed to increase economic efficiency by spurring technological advances in science and health.

(4) To invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits.

(5) To stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases.

(b) **GENERAL PRINCIPLES CONCERNING USE OF FUNDS.**—The President and the heads of Federal departments and agencies shall manage and expend the funds made available in this Act so as to achieve the purposes specified in subsection (a), including commencing expenditures and activities as quickly as possible consistent with prudent management.

1 USC 1 note.

#### **SEC. 4. REFERENCES.**

Except as expressly provided otherwise, any reference to “this Act” contained in any division of this Act shall be treated as referring only to the provisions of that division.

#### **SEC. 5. EMERGENCY DESIGNATIONS.**

(a) **IN GENERAL.**—Each amount in this Act is designated as an emergency requirement and necessary to meet emergency needs pursuant to section 204(a) of S. Con. Res. 21 (110th Congress) and section 301(b)(2) of S. Con. Res. 70 (110th Congress), the concurrent resolutions on the budget for fiscal years 2008 and 2009.

(b) **PAY-AS-YOU-GO.**—All applicable provisions in this Act are designated as an emergency for purposes of pay-as-you-go principles.

## **DIVISION A—APPROPRIATIONS PROVISIONS**

That the following sums are appropriated, out of any money in the Treasury not otherwise appropriated, for the fiscal year ending September 30, 2009, and for other purposes, namely:

### **TITLE I—AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES**

#### **DEPARTMENT OF AGRICULTURE**

##### **AGRICULTURE BUILDINGS AND FACILITIES AND RENTAL PAYMENTS**

For an additional amount for “Agriculture Buildings and Facilities and Rental Payments”, \$24,000,000, for necessary construction, repair, and improvement activities.

##### **OFFICE OF INSPECTOR GENERAL**

For an additional amount for “Office of Inspector General”, \$22,500,000, to remain available until September 30, 2013, for



## DIVISION B—TAX, UNEMPLOYMENT, HEALTH, STATE FISCAL RELIEF, AND OTHER PROVISIONS

### TITLE I—TAX PROVISIONS

American  
Recovery and  
Reinvestment  
Tax Act of 2009.

26 USC 1 note.

26 USC 1 *et seq.*

#### SEC. 1000. SHORT TITLE, ETC.

(a) **SHORT TITLE.**—This title may be cited as the “American Recovery and Reinvestment Tax Act of 2009”.

(b) **REFERENCE.**—Except as otherwise expressly provided, whenever in this title an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Internal Revenue Code of 1986.

(c) **TABLE OF CONTENTS.**—The table of contents for this title is as follows:

#### TITLE I—TAX PROVISIONS

Sec. 1000. Short title, etc.

#### Subtitle A—Tax Relief for Individuals and Families

##### PART I—GENERAL TAX RELIEF

- Sec. 1001. Making work pay credit.
- Sec. 1002. Temporary increase in earned income tax credit.
- Sec. 1003. Temporary increase of refundable portion of child credit.
- Sec. 1004. American opportunity tax credit.
- Sec. 1005. Computer technology and equipment allowed as a qualified higher education expense for section 529 accounts in 2009 and 2010.
- Sec. 1006. Extension of and increase in first-time homebuyer credit; waiver of requirement to repay.
- Sec. 1007. Suspension of tax on portion of unemployment compensation.
- Sec. 1008. Additional deduction for State sales tax and excise tax on the purchase of certain motor vehicles.

##### PART II—ALTERNATIVE MINIMUM TAX RELIEF

- Sec. 1011. Extension of alternative minimum tax relief for nonrefundable personal credits.
- Sec. 1012. Extension of increased alternative minimum tax exemption amount.

#### Subtitle B—Energy Incentives

##### PART I—RENEWABLE ENERGY INCENTIVES

- Sec. 1101. Extension of credit for electricity produced from certain renewable resources.
- Sec. 1102. Election of investment credit in lieu of production credit.
- Sec. 1103. Repeal of certain limitations on credit for renewable energy property.
- Sec. 1104. Coordination with renewable energy grants.

##### PART II—INCREASED ALLOCATIONS OF NEW CLEAN RENEWABLE ENERGY BONDS AND QUALIFIED ENERGY CONSERVATION BONDS

- Sec. 1111. Increased limitation on issuance of new clean renewable energy bonds.
- Sec. 1112. Increased limitation on issuance of qualified energy conservation bonds.

##### PART III—ENERGY CONSERVATION INCENTIVES

- Sec. 1121. Extension and modification of credit for nonbusiness energy property.
- Sec. 1122. Modification of credit for residential energy efficient property.
- Sec. 1123. Temporary increase in credit for alternative fuel vehicle refueling property.

##### PART IV—MODIFICATION OF CREDIT FOR CARBON DIOXIDE SEQUESTRATION

- Sec. 1131. Application of monitoring requirements to carbon dioxide used as a tertiary injectant.

## PART V—PLUG-IN ELECTRIC DRIVE MOTOR VEHICLES

- Sec. 1141. Credit for new qualified plug-in electric drive motor vehicles.
- Sec. 1142. Credit for certain plug-in electric vehicles.
- Sec. 1143. Conversion kits.
- Sec. 1144. Treatment of alternative motor vehicle credit as a personal credit allowed against AMT.

## PART VI—PARITY FOR TRANSPORTATION FRINGE BENEFITS

- Sec. 1151. Increased exclusion amount for commuter transit benefits and transit passes.

## Subtitle C—Tax Incentives for Business

## PART I—TEMPORARY INVESTMENT INCENTIVES

- Sec. 1201. Special allowance for certain property acquired during 2009.
- Sec. 1202. Temporary increase in limitations on expensing of certain depreciable business assets.

## PART II—SMALL BUSINESS PROVISIONS

- Sec. 1211. 5-year carryback of operating losses of small businesses.
- Sec. 1212. Decreased required estimated tax payments in 2009 for certain small businesses.

## PART III—INCENTIVES FOR NEW JOBS

- Sec. 1221. Incentives to hire unemployed veterans and disconnected youth.

## PART IV—RULES RELATING TO DEBT INSTRUMENTS

- Sec. 1231. Deferral and ratable inclusion of income arising from business indebtedness discharged by the reacquisition of a debt instrument.
- Sec. 1232. Modifications of rules for original issue discount on certain high yield obligations.

## PART V—QUALIFIED SMALL BUSINESS STOCK

- Sec. 1241. Special rules applicable to qualified small business stock for 2009 and 2010.

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- Sec. 1261. Clarification of regulations related to limitations on certain built-in losses following an ownership change.
- Sec. 1262. Treatment of certain ownership changes for purposes of limitations on net operating loss carryforwards and certain built-in losses.

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- Sec. 1501. De minimis safe harbor exception for tax-exempt interest expense of financial institutions.
- Sec. 1502. Modification of small issuer exception to tax-exempt interest expense allocation rules for financial institutions.
- Sec. 1503. Temporary modification of alternative minimum tax limitations on tax-exempt bonds.
- Sec. 1504. Modification to high speed intercity rail facility bonds.

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- Sec. 1521. Qualified school construction bonds.
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- Sec. 1531. Build America bonds.

## PART V—REGULATED INVESTMENT COMPANIES ALLOWED TO PASS-THRU TAX CREDIT BOND CREDITS

- Sec. 1541. Regulated investment companies allowed to pass-thru tax credit bond credits.

## Subtitle G—Other Provisions

- Sec. 1601. Application of certain labor standards to projects financed with certain tax-favored bonds.
- Sec. 1602. Grants to States for low-income housing projects in lieu of low-income housing credit allocations for 2009.
- Sec. 1603. Grants for specified energy property in lieu of tax credits.
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- Sec. 1701. Prohibition on collection of certain payments made under the Continued Dumping and Subsidy Offset Act of 2000.

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- Sec. 1800. Short title.

## PART I—TRADE ADJUSTMENT ASSISTANCE FOR WORKERS

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- Sec. 1826. Employment and case management services.
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- Sec. 1829. Prerequisite education; approved training programs.
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- Sec. 1831. On-the-job training.
- Sec. 1832. Eligibility for unemployment insurance and program benefits while in training.
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- Sec. 1851. Office of Trade Adjustment Assistance.
- Sec. 1852. Accountability of State agencies; collection and publication of program data; agreements with States.

- Sec. 1853. Verification of eligibility for program benefits.
- Sec. 1854. Collection of data and reports; information to workers.
- Sec. 1855. Fraud and recovery of overpayments.
- Sec. 1856. Sense of Congress on application of trade adjustment assistance.
- Sec. 1857. Consultations in promulgation of regulations.
- Sec. 1858. Technical corrections.

#### PART II—TRADE ADJUSTMENT ASSISTANCE FOR FIRMS

- Sec. 1861. Expansion to service sector firms.
- Sec. 1862. Modification of requirements for certification.
- Sec. 1863. Basis for determinations.
- Sec. 1864. Oversight and administration; authorization of appropriations.
- Sec. 1865. Increased penalties for false statements.
- Sec. 1866. Annual report on trade adjustment assistance for firms.
- Sec. 1867. Technical corrections.

#### PART III—TRADE ADJUSTMENT ASSISTANCE FOR COMMUNITIES

- Sec. 1871. Purpose.
- Sec. 1872. Trade adjustment assistance for communities.
- Sec. 1873. Conforming amendments.

#### PART IV—TRADE ADJUSTMENT ASSISTANCE FOR FARMERS

- Sec. 1881. Definitions.
- Sec. 1882. Eligibility.
- Sec. 1883. Benefits.
- Sec. 1884. Report.
- Sec. 1885. Fraud and recovery of overpayments.
- Sec. 1886. Determination of increases of imports for certain fishermen.
- Sec. 1887. Extension of trade adjustment assistance for farmers.

#### PART V—GENERAL PROVISIONS

- Sec. 1891. Effective date.
- Sec. 1892. Extension of trade adjustment assistance programs.
- Sec. 1893. Termination; related provisions.
- Sec. 1894. Government Accountability Office report.
- Sec. 1895. Emergency designation.

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- Sec. 1899. Short title.
- Sec. 1899A. Improvement of the affordability of the credit.
- Sec. 1899B. Payment for monthly premiums paid prior to commencement of advance payments of credit.
- Sec. 1899C. TAA recipients not enrolled in training programs eligible for credit.
- Sec. 1899D. TAA pre-certification period rule for purposes of determining whether there is a 63-day lapse in creditable coverage.
- Sec. 1899E. Continued qualification of family members after certain events.
- Sec. 1899F. Extension of COBRA benefits for certain TAA-eligible individuals and PBGC recipients.
- Sec. 1899G. Addition of coverage through voluntary employees' beneficiary associations.
- Sec. 1899H. Notice requirements.
- Sec. 1899I. Survey and report on enhanced health coverage tax credit program.
- Sec. 1899J. Authorization of appropriations.
- Sec. 1899K. Extension of national emergency grants.
- Sec. 1899L. GAO study and report.

## Subtitle A—Tax Relief for Individuals and Families

### PART I—GENERAL TAX RELIEF

#### SEC. 1001. MAKING WORK PAY CREDIT.

(a) IN GENERAL.—Subpart C of part IV of subchapter A of chapter 1 is amended by inserting after section 36 the following new section:

#### “SEC. 36A. MAKING WORK PAY CREDIT.

“(a) ALLOWANCE OF CREDIT.—In the case of an eligible individual, there shall be allowed as a credit against the tax imposed

## PART V—PLUG-IN ELECTRIC DRIVE MOTOR VEHICLES

### SEC. 1141. CREDIT FOR NEW QUALIFIED PLUG-IN ELECTRIC DRIVE MOTOR VEHICLES.

26 USC 30D.

(a) IN GENERAL.—Section 30D is amended to read as follows:

#### “SEC. 30D. NEW QUALIFIED PLUG-IN ELECTRIC DRIVE MOTOR VEHICLES.

“(a) ALLOWANCE OF CREDIT.—There shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the sum of the credit amounts determined under subsection (b) with respect to each new qualified plug-in electric drive motor vehicle placed in service by the taxpayer during the taxable year.

“(b) PER VEHICLE DOLLAR LIMITATION.—

“(1) IN GENERAL.—The amount determined under this subsection with respect to any new qualified plug-in electric drive motor vehicle is the sum of the amounts determined under paragraphs (2) and (3) with respect to such vehicle.

“(2) BASE AMOUNT.—The amount determined under this paragraph is \$2,500.

“(3) BATTERY CAPACITY.—In the case of a vehicle which draws propulsion energy from a battery with not less than 5 kilowatt hours of capacity, the amount determined under this paragraph is \$417, plus \$417 for each kilowatt hour of capacity in excess of 5 kilowatt hours. The amount determined under this paragraph shall not exceed \$5,000.

“(c) APPLICATION WITH OTHER CREDITS.—

“(1) BUSINESS CREDIT TREATED AS PART OF GENERAL BUSINESS CREDIT.—So much of the credit which would be allowed under subsection (a) for any taxable year (determined without regard to this subsection) that is attributable to property of a character subject to an allowance for depreciation shall be treated as a credit listed in section 38(b) for such taxable year (and not allowed under subsection (a)).

“(2) PERSONAL CREDIT.—

“(A) IN GENERAL.—For purposes of this title, the credit allowed under subsection (a) for any taxable year (determined after application of paragraph (1)) shall be treated as a credit allowable under subpart A for such taxable year.

“(B) LIMITATION BASED ON AMOUNT OF TAX.—In the case of a taxable year to which section 26(a)(2) does not apply, the credit allowed under subsection (a) for any taxable year (determined after application of paragraph (1)) shall not exceed the excess of—

“(i) the sum of the regular tax liability (as defined in section 26(b)) plus the tax imposed by section 55, over

“(ii) the sum of the credits allowable under subpart A (other than this section and sections 23 and 25D) and section 27 for the taxable year.

“(d) NEW QUALIFIED PLUG-IN ELECTRIC DRIVE MOTOR VEHICLE.—For purposes of this section—

“(1) IN GENERAL.—The term ‘new qualified plug-in electric drive motor vehicle’ means a motor vehicle—



“(A) the original use of which commences with the taxpayer,

“(B) which is acquired for use or lease by the taxpayer and not for resale,

“(C) which is made by a manufacturer,

“(D) which is treated as a motor vehicle for purposes of title II of the Clean Air Act,

“(E) which has a gross vehicle weight rating of less than 14,000 pounds, and

“(F) which is propelled to a significant extent by an electric motor which draws electricity from a battery which—

“(i) has a capacity of not less than 4 kilowatt hours, and

“(ii) is capable of being recharged from an external source of electricity.

“(2) MOTOR VEHICLE.—The term ‘motor vehicle’ means any vehicle which is manufactured primarily for use on public streets, roads, and highways (not including a vehicle operated exclusively on a rail or rails) and which has at least 4 wheels.

“(3) MANUFACTURER.—The term ‘manufacturer’ has the meaning given such term in regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of the administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.).

“(4) BATTERY CAPACITY.—The term ‘capacity’ means, with respect to any battery, the quantity of electricity which the battery is capable of storing, expressed in kilowatt hours, as measured from a 100 percent state of charge to a 0 percent state of charge.

“(e) LIMITATION ON NUMBER OF NEW QUALIFIED PLUG-IN ELECTRIC DRIVE MOTOR VEHICLES ELIGIBLE FOR CREDIT.—

“(1) IN GENERAL.—In the case of a new qualified plug-in electric drive motor vehicle sold during the phaseout period, only the applicable percentage of the credit otherwise allowable under subsection (a) shall be allowed.

“(2) PHASEOUT PERIOD.—For purposes of this subsection, the phaseout period is the period beginning with the second calendar quarter following the calendar quarter which includes the first date on which the number of new qualified plug-in electric drive motor vehicles manufactured by the manufacturer of the vehicle referred to in paragraph (1) sold for use in the United States after December 31, 2009, is at least 200,000.

“(3) APPLICABLE PERCENTAGE.—For purposes of paragraph (1), the applicable percentage is—

“(A) 50 percent for the first 2 calendar quarters of the phaseout period,

“(B) 25 percent for the 3d and 4th calendar quarters of the phaseout period, and

“(C) 0 percent for each calendar quarter thereafter.

“(4) CONTROLLED GROUPS.—Rules similar to the rules of section 30B(f)(4) shall apply for purposes of this subsection.

“(f) SPECIAL RULES.—

“(1) BASIS REDUCTION.—For purposes of this subtitle, the basis of any property for which a credit is allowable under

Regulations.  
Applicability.

subsection (a) shall be reduced by the amount of such credit so allowed.

“(2) NO DOUBLE BENEFIT.—The amount of any deduction or other credit allowable under this chapter for a new qualified plug-in electric drive motor vehicle shall be reduced by the amount of credit allowed under subsection (a) for such vehicle.

“(3) PROPERTY USED BY TAX-EXEMPT ENTITY.—In the case of a vehicle the use of which is described in paragraph (3) or (4) of section 50(b) and which is not subject to a lease, the person who sold such vehicle to the person or entity using such vehicle shall be treated as the taxpayer that placed such vehicle in service, but only if such person clearly discloses to such person or entity in a document the amount of any credit allowable under subsection (a) with respect to such vehicle (determined without regard to subsection (c)).

“(4) PROPERTY USED OUTSIDE UNITED STATES NOT QUALIFIED.—No credit shall be allowable under subsection (a) with respect to any property referred to in section 50(b)(1).

Regulations.

“(5) RECAPTURE.—The Secretary shall, by regulations, provide for recapturing the benefit of any credit allowable under subsection (a) with respect to any property which ceases to be property eligible for such credit.

“(6) ELECTION NOT TO TAKE CREDIT.—No credit shall be allowed under subsection (a) for any vehicle if the taxpayer elects to not have this section apply to such vehicle.

“(7) INTERACTION WITH AIR QUALITY AND MOTOR VEHICLE SAFETY STANDARDS.—A motor vehicle shall not be considered eligible for a credit under this section unless such vehicle is in compliance with—

“(A) the applicable provisions of the Clean Air Act for the applicable make and model year of the vehicle (or applicable air quality provisions of State law in the case of a State which has adopted such provision under a waiver under section 209(b) of the Clean Air Act), and

“(B) the motor vehicle safety provisions of sections 30101 through 30169 of title 49, United States Code.”.

(b) CONFORMING AMENDMENTS.—

26 USC 30B.

(1) Section 30B(d)(3)(D) is amended by striking “subsection (d) thereof” and inserting “subsection (c) thereof”.

(2) Section 38(b)(35) is amended by striking “30D(d)(1)” and inserting “30D(c)(1)”.

(3) Section 1016(a)(25) is amended by striking “section 30D(e)(4)” and inserting “section 30D(f)(1)”.

(4) Section 6501(m) is amended by striking “section 30D(e)(9)” and inserting “section 30D(e)(4)”.

26 USC 30B note.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to vehicles acquired after December 31, 2009.

#### **SEC. 1142. CREDIT FOR CERTAIN PLUG-IN ELECTRIC VEHICLES.**

(a) IN GENERAL.—Section 30 is amended to read as follows:

##### **“SEC. 30. CERTAIN PLUG-IN ELECTRIC VEHICLES.**

“(a) ALLOWANCE OF CREDIT.—There shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to 10 percent of the cost of any qualified plug-in electric vehicle placed in service by the taxpayer during the taxable year.

Public Law 117–58  
117th Congress

An Act

To authorize funds for Federal-aid highways, highway safety programs, and transit programs, and for other purposes.

Nov. 15, 2021

[H.R. 3684]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

Infrastructure  
Investment and  
Jobs Act.

**SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

(a) **SHORT TITLE.**—This Act may be cited as the “Infrastructure Investment and Jobs Act”.

23 USC 101 note.

(b) **TABLE OF CONTENTS.**—The table of contents for this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. References.

**DIVISION A—SURFACE TRANSPORTATION**

- Sec. 10001. Short title.
- Sec. 10002. Definitions.
- Sec. 10003. Effective date.

**TITLE I—FEDERAL-AID HIGHWAYS**

**Subtitle A—Authorizations and Programs**

- Sec. 11101. Authorization of appropriations.
- Sec. 11102. Obligation ceiling.
- Sec. 11103. Definitions.
- Sec. 11104. Apportionment.
- Sec. 11105. National highway performance program.
- Sec. 11106. Emergency relief.
- Sec. 11107. Federal share payable.
- Sec. 11108. Railway-highway grade crossings.
- Sec. 11109. Surface transportation block grant program.
- Sec. 11110. Nationally significant freight and highway projects.
- Sec. 11111. Highway safety improvement program.
- Sec. 11112. Federal lands transportation program.
- Sec. 11113. Federal lands access program.
- Sec. 11114. National highway freight program.
- Sec. 11115. Congestion mitigation and air quality improvement program.
- Sec. 11116. Alaska Highway.
- Sec. 11117. Toll roads, bridges, tunnels, and ferries.
- Sec. 11118. Bridge investment program.
- Sec. 11119. Safe routes to school.
- Sec. 11120. Highway use tax evasion projects.
- Sec. 11121. Construction of ferry boats and ferry terminal facilities.
- Sec. 11122. Vulnerable road user research.
- Sec. 11123. Wildlife crossing safety.
- Sec. 11124. Consolidation of programs.
- Sec. 11125. GAO report.
- Sec. 11126. Territorial and Puerto Rico highway program.
- Sec. 11127. Nationally significant Federal lands and Tribal projects program.
- Sec. 11128. Tribal high priority projects program.
- Sec. 11129. Standards.
- Sec. 11130. Public transportation.

- Sec. 11131. Reservation of certain funds.
- Sec. 11132. Rural surface transportation grant program.
- Sec. 11133. Bicycle transportation and pedestrian walkways.
- Sec. 11134. Recreational trails program.
- Sec. 11135. Updates to Manual on Uniform Traffic Control Devices.

#### Subtitle B—Planning and Performance Management

- Sec. 11201. Transportation planning.
- Sec. 11202. Fiscal constraint on long-range transportation plans.
- Sec. 11203. State human capital plans.
- Sec. 11204. Prioritization process pilot program.
- Sec. 11205. Travel demand data and modeling.
- Sec. 11206. Increasing safe and accessible transportation options.

#### Subtitle C—Project Delivery and Process Improvement

- Sec. 11301. Codification of One Federal Decision.
- Sec. 11302. Work zone process reviews.
- Sec. 11303. Transportation management plans.
- Sec. 11304. Intelligent transportation systems.
- Sec. 11305. Alternative contracting methods.
- Sec. 11306. Flexibility for projects.
- Sec. 11307. Improved Federal-State stewardship and oversight agreements.
- Sec. 11308. Geomatic data.
- Sec. 11309. Evaluation of projects within an operational right-of-way.
- Sec. 11310. Preliminary engineering.
- Sec. 11311. Efficient implementation of NEPA for Federal land management projects.
- Sec. 11312. National Environmental Policy Act of 1969 reporting program.
- Sec. 11313. Surface transportation project delivery program written agreements.
- Sec. 11314. State assumption of responsibility for categorical exclusions.
- Sec. 11315. Early utility relocation prior to transportation project environmental review.
- Sec. 11316. Streamlining of section 4(f) reviews.
- Sec. 11317. Categorical exclusion for projects of limited Federal assistance.
- Sec. 11318. Certain gathering lines located on Federal land and Indian land.
- Sec. 11319. Annual report.

#### Subtitle D—Climate Change

- Sec. 11401. Grants for charging and fueling infrastructure.
- Sec. 11402. Reduction of truck emissions at port facilities.
- Sec. 11403. Carbon reduction program.
- Sec. 11404. Congestion relief program.
- Sec. 11405. Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) program.
- Sec. 11406. Healthy Streets program.

#### Subtitle E—Miscellaneous

- Sec. 11501. Additional deposits into Highway Trust Fund.
- Sec. 11502. Stopping threats on pedestrians.
- Sec. 11503. Transfer and sale of toll credits.
- Sec. 11504. Study of impacts on roads from self-driving vehicles.
- Sec. 11505. Disaster relief mobilization study.
- Sec. 11506. Appalachian Regional Commission.
- Sec. 11507. Denali Commission.
- Sec. 11508. Requirements for transportation projects carried out through public-private partnerships.
- Sec. 11509. Reconnecting communities pilot program.
- Sec. 11510. Cybersecurity tool; cyber coordinator.
- Sec. 11511. Report on emerging alternative fuel vehicles and infrastructure.
- Sec. 11512. Nonhighway recreational fuel study.
- Sec. 11513. Buy America.
- Sec. 11514. High priority corridors on the National Highway System.
- Sec. 11515. Interstate weight limits.
- Sec. 11516. Report on air quality improvements.
- Sec. 11517. Roadside highway safety hardware.
- Sec. 11518. Permeable pavements study.
- Sec. 11519. Emergency relief projects.
- Sec. 11520. Study on stormwater best management practices.
- Sec. 11521. Stormwater best management practices reports.
- Sec. 11522. Invasive plant elimination program.
- Sec. 11523. Over-the-road bus tolling equity.

- Sec. 11524. Bridge terminology.
- Sec. 11525. Technical corrections.
- Sec. 11526. Working group on covered resources.
- Sec. 11527. Blood transport vehicles.
- Sec. 11528. Pollinator-friendly practices on roadsides and highway rights-of-way.
- Sec. 11529. Active transportation infrastructure investment program.
- Sec. 11530. Highway cost allocation study.

#### TITLE II—TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION

- Sec. 12001. Transportation Infrastructure Finance and Innovation Act of 1998 amendments.
- Sec. 12002. Federal requirements for TIFIA eligibility and project selection.

#### TITLE III—RESEARCH, TECHNOLOGY, AND EDUCATION

- Sec. 13001. Strategic innovation for revenue collection.
- Sec. 13002. National motor vehicle per-mile user fee pilot.
- Sec. 13003. Performance management data support program.
- Sec. 13004. Data integration pilot program.
- Sec. 13005. Emerging technology research pilot program.
- Sec. 13006. Research and technology development and deployment.
- Sec. 13007. Workforce development, training, and education.
- Sec. 13008. Wildlife-vehicle collision research.
- Sec. 13009. Transportation Resilience and Adaptation Centers of Excellence.
- Sec. 13010. Transportation access pilot program.

#### TITLE IV—INDIAN AFFAIRS

- Sec. 14001. Definition of Secretary.
- Sec. 14002. Environmental reviews for certain tribal transportation facilities.
- Sec. 14003. Programmatic agreements for tribal categorical exclusions.
- Sec. 14004. Use of certain tribal transportation funds.
- Sec. 14005. Bureau of Indian Affairs road maintenance program.
- Sec. 14006. Study of road maintenance on Indian land.
- Sec. 14007. Maintenance of certain Indian reservation roads.
- Sec. 14008. Tribal transportation safety needs.
- Sec. 14009. Office of Tribal Government Affairs.

#### DIVISION B—SURFACE TRANSPORTATION INVESTMENT ACT OF 2021

- Sec. 20001. Short title.
- Sec. 20002. Definitions.

#### TITLE I—MULTIMODAL AND FREIGHT TRANSPORTATION

##### Subtitle A—Multimodal Freight Policy

- Sec. 21101. Office of Multimodal Freight Infrastructure and Policy.
- Sec. 21102. Updates to National Freight Plan.
- Sec. 21103. State collaboration with National Multimodal Freight Network.
- Sec. 21104. Improving State freight plans.
- Sec. 21105. Implementation of National Multimodal Freight Network.
- Sec. 21106. Multi-State freight corridor planning.
- Sec. 21107. State freight advisory committees.

##### Subtitle B—Multimodal Investment

- Sec. 21201. National infrastructure project assistance.
- Sec. 21202. Local and regional project assistance.
- Sec. 21203. National culvert removal, replacement, and restoration grant program.
- Sec. 21204. National multimodal cooperative freight research program.
- Sec. 21205. Rural and Tribal infrastructure advancement.

##### Subtitle C—Railroad Rehabilitation and Improvement Financing Reforms

- Sec. 21301. RRIF codification and reforms.
- Sec. 21302. Substantive criteria and standards.
- Sec. 21303. Semiannual report on transit-oriented development eligibility.

#### TITLE II—RAIL

- Sec. 22001. Short title.

##### Subtitle A—Authorization of Appropriations

- Sec. 22101. Grants to Amtrak.



- Sec. 22102. Federal Railroad Administration.
- Sec. 22103. Consolidated rail infrastructure and safety improvements grants.
- Sec. 22104. Railroad crossing elimination program.
- Sec. 22105. Restoration and enhancement grants.
- Sec. 22106. Federal-State partnership for intercity passenger rail grants.
- Sec. 22107. Amtrak Office of Inspector General.

#### Subtitle B—Amtrak Reforms

- Sec. 22201. Amtrak findings, mission, and goals.
- Sec. 22202. Composition of Amtrak’s Board of Directors.
- Sec. 22203. Station agents.
- Sec. 22204. Increasing oversight of changes to Amtrak long-distance routes and other intercity services.
- Sec. 22205. Improved oversight of Amtrak accounting.
- Sec. 22206. Improved oversight of Amtrak spending.
- Sec. 22207. Increasing service line and asset line plan transparency.
- Sec. 22208. Passenger experience enhancement.
- Sec. 22209. Amtrak smoking policy.
- Sec. 22210. Protecting Amtrak routes through rural communities.
- Sec. 22211. State-Supported Route Committee.
- Sec. 22212. Enhancing cross border service.
- Sec. 22213. Creating quality jobs.
- Sec. 22214. Amtrak daily long-distance service study.

#### Subtitle C—Intercity Passenger Rail Policy

- Sec. 22301. Northeast Corridor planning.
- Sec. 22302. Northeast Corridor Commission.
- Sec. 22303. Consolidated rail infrastructure and safety improvements.
- Sec. 22304. Restoration and enhancement grants.
- Sec. 22305. Railroad crossing elimination program.
- Sec. 22306. Interstate rail compacts.
- Sec. 22307. Federal-State partnership for intercity passenger rail grants.
- Sec. 22308. Corridor identification and development program.
- Sec. 22309. Surface Transportation Board passenger rail program.

#### Subtitle D—Rail Safety

- Sec. 22401. Railway-highway crossings program evaluation.
- Sec. 22402. Grade crossing accident prediction model.
- Sec. 22403. Periodic updates to highway-rail crossing reports and plans.
- Sec. 22404. Blocked crossing portal.
- Sec. 22405. Data accessibility.
- Sec. 22406. Emergency lighting.
- Sec. 22407. Comprehensive rail safety review of Amtrak.
- Sec. 22408. Completion of hours of service and fatigue studies.
- Sec. 22409. Positive train control study.
- Sec. 22410. Operating crew member training, qualification, and certification.
- Sec. 22411. Transparency and safety.
- Sec. 22412. Research and development.
- Sec. 22413. Rail research and development center of excellence.
- Sec. 22414. Quarterly report on positive train control system performance.
- Sec. 22415. Speed limit action plans.
- Sec. 22416. New passenger service pre-revenue safety validation plan.
- Sec. 22417. Federal Railroad Administration accident and incident investigations.
- Sec. 22418. Civil penalty enforcement authority.
- Sec. 22419. Advancing safety and innovative technology.
- Sec. 22420. Passenger rail vehicle occupant protection systems.
- Sec. 22421. Federal Railroad Administration reporting requirements.
- Sec. 22422. National Academies study on trains longer than 7,500 feet.
- Sec. 22423. High-speed train noise emissions.
- Sec. 22424. Critical incident stress plans.
- Sec. 22425. Requirements for railroad freight cars placed into service in the United States.
- Sec. 22426. Railroad point of contact for public safety issues.
- Sec. 22427. Controlled substances testing for mechanical employees.

#### TITLE III—MOTOR CARRIER SAFETY

- Sec. 23001. Authorization of appropriations.
- Sec. 23002. Motor carrier safety advisory committee.
- Sec. 23003. Combating human trafficking.
- Sec. 23004. Immobilization grant program.
- Sec. 23005. Commercial motor vehicle enforcement training and support.

- Sec. 23006. Study of commercial motor vehicle crash causation.
- Sec. 23007. Promoting women in the trucking workforce.
- Sec. 23008. State inspection of passenger-carrying commercial motor vehicles.
- Sec. 23009. Truck Leasing Task Force.
- Sec. 23010. Automatic emergency braking.
- Sec. 23011. Underride protection.
- Sec. 23012. Providers of recreational activities.
- Sec. 23013. Amendments to regulations relating to transportation of household goods in interstate commerce.
- Sec. 23014. Improving Federal-State motor carrier safety enforcement coordination.
- Sec. 23015. Limousine research.
- Sec. 23016. National Consumer Complaint Database.
- Sec. 23017. Electronic logging device oversight.
- Sec. 23018. Transportation of agricultural commodities and farm supplies.
- Sec. 23019. Modification of restrictions on certain commercial driver's licenses.
- Sec. 23020. Report on human trafficking violations involving commercial motor vehicles.
- Sec. 23021. Broker guidance relating to Federal motor carrier safety regulations.
- Sec. 23022. Apprenticeship pilot program.
- Sec. 23023. Limousine compliance with Federal safety standards.

#### TITLE IV—HIGHWAY AND MOTOR VEHICLE SAFETY

##### Subtitle A—Highway Traffic Safety

- Sec. 24101. Authorization of appropriations.
- Sec. 24102. Highway safety programs.
- Sec. 24103. Highway safety research and development.
- Sec. 24104. High-visibility enforcement programs.
- Sec. 24105. National priority safety programs.
- Sec. 24106. Multiple substance-impaired driving prevention.
- Sec. 24107. Minimum penalties for repeat offenders for driving while intoxicated or driving under the influence.
- Sec. 24108. Crash data.
- Sec. 24109. Review of Move Over or Slow Down Law public awareness.
- Sec. 24110. Review of laws, safety measures, and technologies relating to school buses.
- Sec. 24111. Motorcyclist Advisory Council.
- Sec. 24112. Safe Streets and Roads for All grant program.
- Sec. 24113. Implementation of GAO recommendations.

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- Sec. 24201. Authorization of appropriations.
- Sec. 24202. Recall completion.
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- Sec. 24215. Emergency medical services and 9–1–1.
- Sec. 24216. Early warning reporting.
- Sec. 24217. Improved vehicle safety databases.
- Sec. 24218. National Driver Register Advisory Committee repeal.
- Sec. 24219. Research on connected vehicle technology.
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- Sec. 24221. GAO report on crash dummies.
- Sec. 24222. Child safety.

#### TITLE V—RESEARCH AND INNOVATION

- Sec. 25001. Intelligent Transportation Systems Program Advisory Committee.
- Sec. 25002. Smart Community Resource Center.
- Sec. 25003. Federal support for local decisionmaking.
- Sec. 25004. Bureau of Transportation Statistics.
- Sec. 25005. Strengthening mobility and revolutionizing transportation grant program.

- Sec. 25006. Electric vehicle working group.
- Sec. 25007. Risk and system resilience.
- Sec. 25008. Coordination on emerging transportation technology.
- Sec. 25009. Interagency Infrastructure Permitting Improvement Center.
- Sec. 25010. Rural opportunities to use transportation for economic success initiative.
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- Sec. 40113. Columbia Basin power management.

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- Sec. 40412. Data collection in the electricity sector.
- Sec. 40413. Expansion of energy consumption surveys.
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- Sec. 40432. Office of public participation.
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- Sec. 40531. Definitions.
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TITLE VIII—NATURAL RESOURCES-RELATED INFRASTRUCTURE,  
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Sec. 40801. Forest Service Legacy Road and Trail Remediation Program.

Sec. 40802. Study and report on feasibility of revegetating reclaimed mine sites.

Sec. 40803. Wildfire risk reduction.

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Sec. 40902. Water storage, groundwater storage, and conveyance projects.

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Sec. 40904. Critical maintenance and repair.

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Sec. 40906. Drought contingency plan funding requirements.

Sec. 40907. Multi-benefit projects to improve watershed health.

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Sec. 40909. Clarification of authority to use coronavirus fiscal recovery funds to meet a non-Federal matching requirement for authorized Bureau of Reclamation water projects.

Sec. 40910. Federal assistance for groundwater recharge, aquifer storage, and water source substitution projects.

TITLE X—AUTHORIZATION OF APPROPRIATIONS FOR ENERGY ACT OF 2020

Sec. 41001. Energy storage demonstration projects.

Sec. 41002. Advanced reactor demonstration program.

Sec. 41003. Mineral security projects.

Sec. 41004. Carbon capture demonstration and pilot programs.

Sec. 41005. Direct air capture technologies prize competitions.

Sec. 41006. Water power projects.

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Sec. 41008. Industrial emissions demonstration projects.

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Sec. 41101. Wage rate requirements.

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Sec. 41202. Extension of Secure Rural Schools and Community Self-Determination Act of 2000.

DIVISION E—DRINKING WATER AND WASTEWATER INFRASTRUCTURE

Sec. 50001. Short title.

Sec. 50002. Definition of Administrator.

#### TITLE I—DRINKING WATER

- Sec. 50101. Technical assistance and grants for emergencies affecting public water systems.
- Sec. 50102. Drinking water State revolving loan funds.
- Sec. 50103. Source water petition program.
- Sec. 50104. Assistance for small and disadvantaged communities.
- Sec. 50105. Reducing lead in drinking water.
- Sec. 50106. Operational sustainability of small public water systems.
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- Sec. 50108. Needs assessment for nationwide rural and urban low-income community water assistance.
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- Sec. 50202. Wastewater efficiency grant pilot program.
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- Sec. 50215. Water infrastructure financing reauthorization.
- Sec. 50216. Small and disadvantaged community analysis.
- Sec. 50217. Stormwater infrastructure technology.
- Sec. 50218. Water Reuse Interagency Working Group.
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- Sec. 60102. Grants for broadband deployment.
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- Sec. 60201. Tribal connectivity technical amendments.

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- Sec. 60302. Definitions.
- Sec. 60303. Sense of Congress.
- Sec. 60304. State Digital Equity Capacity Grant Program.
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TITLE V—BROADBAND AFFORDABILITY

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Sec. 60504. Adoption of consumer broadband labels.

Sec. 60505. GAO report.

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DIVISION G—OTHER AUTHORIZATIONS

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TITLE II—WILDFIRE MITIGATION

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Sec. 70204. Duties of Commission.

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Sec. 70302. Reforestation following wildfires and other unplanned events.

Sec. 70303. Report.

TITLE IV—RECYCLING PRACTICES

Sec. 70401. Best practices for battery recycling and labeling guidelines.

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Sec. 70601. Short title.

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Sec. 70701. Value for money analysis.

TITLE VIII—FEDERAL PERMITTING IMPROVEMENT

Sec. 70801. Federal permitting improvement.

TITLE IX—BUILD AMERICA, BUY AMERICA

Subtitle A—Build America, Buy America

Sec. 70901. Short title.

PART I—BUY AMERICA SOURCING REQUIREMENTS

Sec. 70911. Findings.

- Sec. 70912. Definitions.
- Sec. 70913. Identification of deficient programs.
- Sec. 70914. Application of Buy America preference.
- Sec. 70915. OMB guidance and standards.
- Sec. 70916. Technical assistance partnership and consultation supporting Department of Transportation Buy America requirements.
- Sec. 70917. Application.

## PART II—MAKE IT IN AMERICA

- Sec. 70921. Regulations relating to Buy American Act.
- Sec. 70922. Amendments relating to Buy American Act.
- Sec. 70923. Made in America Office.
- Sec. 70924. Hollings Manufacturing Extension Partnership activities.
- Sec. 70925. United States obligations under international agreements.
- Sec. 70926. Definitions.
- Sec. 70927. Prospective amendments to internal cross-references.

## Subtitle B—BuyAmerican.gov

- Sec. 70931. Short title.
- Sec. 70932. Definitions.
- Sec. 70933. Sense of Congress on buying American.
- Sec. 70934. Assessment of impact of free trade agreements.
- Sec. 70935. Judicious use of waivers.
- Sec. 70936. Establishment of BuyAmerican.gov website.
- Sec. 70937. Waiver Transparency and Streamlining for contracts.
- Sec. 70938. Comptroller General report.
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- Sec. 70940. Consistency with international agreements.
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## TITLE XI—CLEAN SCHOOL BUSES AND FERRIES

- Sec. 71101. Clean school bus program.
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## DIVISION H—REVENUE PROVISIONS

## TITLE I—HIGHWAY TRUST FUND

- Sec. 80101. Extension of Highway Trust Fund expenditure authority.
- Sec. 80102. Extension of highway-related taxes.
- Sec. 80103. Further additional transfers to trust fund.

## TITLE II—CHEMICAL SUPERFUND

- Sec. 80201. Extension and modification of certain superfund excise taxes.

## TITLE III—CUSTOMS USER FEES

- Sec. 80301. Extension of customs user fees.

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- Sec. 80401. Private activity bonds for qualified broadband projects.
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## TITLE V—RELIEF FOR TAXPAYERS AFFECTED BY DISASTERS OR OTHER CRITICAL EVENTS

- Sec. 80501. Modification of automatic extension of certain deadlines in the case of taxpayers affected by Federally declared disasters.

- Sec. 80502. Modifications of rules for postponing certain acts by reason of service in combat zone or contingency operation.
- Sec. 80503. Tolling of time for filing a petition with the tax court.
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## TITLE VI—OTHER PROVISIONS

- Sec. 80601. Modification of tax treatment of contributions to the capital of a corporation.
- Sec. 80602. Extension of interest rate stabilization.
- Sec. 80603. Information reporting for brokers and digital assets.
- Sec. 80604. Termination of employee retention credit for employers subject to closure due to COVID–19.

## DIVISION I—OTHER MATTERS

- Sec. 90001. Extension of direct spending reductions through fiscal year 2031.
- Sec. 90002. Strategic Petroleum Reserve drawdown and sale.
- Sec. 90003. Findings regarding unused unemployment insurance funds.
- Sec. 90004. Requiring manufacturers of certain single-dose container or single-use package drugs payable under part B of the Medicare program to provide refunds with respect to discarded amounts of such drugs.
- Sec. 90005. Extension of enterprise guarantee fees.
- Sec. 90006. Moratorium on implementation of rule relating to eliminating the anti-kickback statute safe harbor protection for prescription drug rebates.
- Sec. 90007. Rescission of COVID–19 appropriations.
- Sec. 90008. Spectrum auctions.

## DIVISION J—APPROPRIATIONS

TITLE I—AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG  
ADMINISTRATION, AND RELATED AGENCIES

## TITLE II—COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES

## TITLE III—ENERGY AND WATER DEVELOPMENT AND RELATED AGENCIES

## TITLE IV—FINANCIAL SERVICES AND GENERAL GOVERNMENT

## TITLE V—DEPARTMENT OF HOMELAND SECURITY

TITLE VI—DEPARTMENT OF THE INTERIOR, ENVIRONMENT, AND  
RELATED AGENCIESTITLE VII—LABOR, HEALTH AND HUMAN SERVICES, AND EDUCATION,  
AND RELATED AGENCIESTITLE VIII—TRANSPORTATION, HOUSING AND URBAN DEVELOPMENT,  
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## TITLE IX—GENERAL PROVISIONS—THIS DIVISION

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- Sec. 100001. Short title.
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## Subtitle A—Market Development, Research, and Information

- Sec. 100101. Private sector development.
- Sec. 100102. Public sector development.
- Sec. 100103. Research and information.

## Subtitle B—Minority Business Development Agency Business Center Program

- Sec. 100111. Definition.
- Sec. 100112. Purpose.
- Sec. 100113. Establishment.
- Sec. 100114. Grants and cooperative agreements.
- Sec. 100115. Minimizing disruptions to existing MBDA Business Center program.
- Sec. 100116. Publicity.

TITLE II—NEW INITIATIVES TO PROMOTE ECONOMIC RESILIENCY FOR  
MINORITY BUSINESSES

- Sec. 100201. Annual diverse business forum on capital formation.



- Sec. 100202. Agency study on alternative financing solutions.
- Sec. 100203. Educational development relating to management and entrepreneurship.

#### TITLE III—RURAL MINORITY BUSINESS CENTER PROGRAM

- Sec. 100301. Definitions.
- Sec. 100302. Business centers.
- Sec. 100303. Report to Congress.
- Sec. 100304. Study and report.

#### TITLE IV—MINORITY BUSINESS DEVELOPMENT GRANTS

- Sec. 100401. Grants to nonprofit organizations that support minority business enterprises.

#### TITLE V—MINORITY BUSINESS ENTERPRISES ADVISORY COUNCIL

- Sec. 100501. Purpose.
- Sec. 100502. Composition and term.
- Sec. 100503. Duties.

#### TITLE VI—FEDERAL COORDINATION OF MINORITY BUSINESS PROGRAMS

- Sec. 100601. General duties.
- Sec. 100602. Participation of Federal departments and agencies.

#### TITLE VII—ADMINISTRATIVE POWERS OF THE AGENCY; MISCELLANEOUS PROVISIONS

- Sec. 100701. Administrative powers.
- Sec. 100702. Federal assistance.
- Sec. 100703. Recordkeeping.
- Sec. 100704. Review and report by Comptroller General.
- Sec. 100705. Biannual reports; recommendations.
- Sec. 100706. Separability.
- Sec. 100707. Executive Order 11625.
- Sec. 100708. Authorization of appropriations.

1 USC 1 note.

#### **SEC. 2. REFERENCES.**

Except as expressly provided otherwise, any reference to “this Act” contained in any division of this Act shall be treated as referring only to the provisions of that division.

Commerce for Communications and Information, shall begin a system of competitive bidding under section 309(j) of the Communications Act of 1934 (47 U.S.C. 309(j)) to grant new licenses for the spectrum identified under paragraph (2)(A)(ii) of this subsection.

Deadline.

(4) SHARING OF SPECTRUM.—Not earlier than May 31, 2025, the President shall modify any assignment to a Federal Government station of the frequencies identified under clause (ii) of paragraph (2)(A) in order to accommodate shared Federal and non-Federal commercial licensed use in accordance with that paragraph.

(5) AUCTION PROCEEDS TO COVER 110 PERCENT OF FEDERAL RELOCATION OR SHARING COSTS.—Nothing in this subsection shall be construed to relieve the Commission from the requirements under section 309(j)(16)(B) of the Communications Act of 1934 (47 U.S.C. 309(j)(16)(B)).

(c) FCC AUCTION AUTHORITY.—

(1) TERMINATION.—Section 309(j)(11) of the Communications Act of 1934 (47 U.S.C. 309(j)(11)) is amended by inserting after “2025” the following: “, and with respect to the electromagnetic spectrum identified under section 90008(b)(2)(A)(ii) of the Infrastructure Investment and Jobs Act, such authority shall expire on the date that is 7 years after the date of enactment of that Act”.

(2) SPECTRUM PIPELINE ACT OF 2015.—Section 1006(c)(1) of the Spectrum Pipeline Act of 2015 (Public Law 114–74; 129 Stat. 624) is amended by striking “2022” and inserting “2024”.

Infrastructure  
Investments  
and Jobs  
Appropriations  
Act.  
Time periods.

## DIVISION J—APPROPRIATIONS

That the following sums are appropriated, out of any money in the Treasury not otherwise appropriated, for the fiscal year ending September 30, 2022, and for other purposes, namely:

### TITLE I—AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES

#### DEPARTMENT OF AGRICULTURE

##### FARM PRODUCTION AND CONSERVATION PROGRAMS

##### NATURAL RESOURCES CONSERVATION SERVICE

##### WATERSHED AND FLOOD PREVENTION OPERATIONS

Deadline.  
Spend plan.  
List.

For an additional amount for “Watershed and Flood Prevention Operations”, \$500,000,000, to remain available until expended: *Provided*, That not later than 90 days after the date of enactment of this Act, the Secretary of Agriculture shall submit to the House and Senate Committees on Appropriations a detailed spend plan, including a list of project locations and project cost: *Provided further*, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985.

Spend plan.

spend plan for fiscal year 2022: *Provided further*, That for each fiscal year through 2026, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code, the Secretary of Health and Human Services shall submit a detailed spend plan for that fiscal year: *Provided further*, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985.

TITLE VII—LABOR, HEALTH AND HUMAN SERVICES, AND  
EDUCATION, AND RELATED AGENCIES

DEPARTMENT OF HEALTH AND HUMAN SERVICES

ADMINISTRATION FOR CHILDREN AND FAMILIES

LOW INCOME HOME ENERGY ASSISTANCE

For an additional amount for “Low Income Home Energy Assistance”, \$500,000,000, to remain available through September 30, 2026, for making payments under subsection (b) of section 2602 of the Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 8621 et seq.): *Provided*, That \$100,000,000, to remain available until September 30, 2026, shall be made available in fiscal year 2022, \$100,000,000, to remain available until September 30, 2026, shall be made available in fiscal year 2023, \$100,000,000, to remain available until September 30, 2026, shall be made available in fiscal year 2024, \$100,000,000, to remain available until September 30, 2026, shall be made available in fiscal year 2025, and \$100,000,000, to remain available until September 30, 2026, shall be made available in fiscal year 2026: *Provided further*, That, of the amount available for obligation in a fiscal year under this heading in this Act, \$50,000,000 shall be allocated as though the total appropriation for such payments for such fiscal year was less than \$1,975,000,000: *Provided further*, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985.

TITLE VIII—TRANSPORTATION, HOUSING AND URBAN  
DEVELOPMENT, AND RELATED AGENCIES

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE SECRETARY

NATIONAL INFRASTRUCTURE INVESTMENTS

For an additional amount for “National Infrastructure Investments”, \$12,500,000,000, to remain available until expended, for necessary expenses to carry out chapter 67 of title 49, United States Code, of which \$5,000,000,000 shall be to carry out section 6701 of such title and \$7,500,000,000 shall be to carry out section 6702 of such title: *Provided*, That, of the amount made available

under this heading in this Act to carry out section 6701 of title 49, United States Code, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That, of the amount made available under this heading in this Act to carry out section 6702 of title 49, United States Code, \$1,500,000,000, to remain available until September 30, 2026, shall be made available for fiscal year 2022, \$1,500,000,000, to remain until September 30, 2027, shall be made available for fiscal year 2023, \$1,500,000,000, to remain available until September 30, 2028, shall be made available for fiscal year 2024, \$1,500,000,000, to remain available until September 30, 2029, shall be made available for fiscal year 2025, and \$1,500,000,000, to remain available September 30, 2030, shall be made available for fiscal year 2026: *Provided further*, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and pursuant to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985.

#### SAFE STREETS AND ROADS FOR ALL GRANTS

For an additional amount for “Safe Streets and Roads for All Grants”, \$5,000,000,000, to remain available until expended, for competitive grants, as authorized under section 24112 of division B of this Act: *Provided*, That \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That the Secretary shall issue a notice of funding opportunity not later than 180 days after each date upon which funds are made available under the preceding proviso: *Provided further*, That the Secretary shall make awards not later than 270 days after issuing the notices of funding opportunity required under the preceding proviso: *Provided further*, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985.

Notice.  
Deadline.

Awards.  
Deadline.

#### NATIONAL CULVERT REMOVAL, REPLACEMENT, AND RESTORATION GRANTS

For an additional amount for “National Culvert Removal, Replacement, and Restoration Grants”, \$1,000,000,000, to remain available until expended, as authorized by section 6203 of title 49, United States Code: *Provided*, That \$200,000,000, to remain

control tower: *Provided further*, That in awarding grants for terminal development projects from funds made available under this heading in this Act, the Secretary shall give consideration to projects that increase capacity and passenger access; projects that replace aging infrastructure; projects that achieve compliance with the Americans with Disabilities Act and expand accessibility for persons with disabilities; projects that improve airport access for historically disadvantaged populations; projects that improve energy efficiency, including upgrading environmental systems, upgrading plant facilities, and achieving Leadership in Energy and Environmental Design (LEED) accreditation standards; projects that improve airfield safety through terminal relocation; and projects that encourage actual and potential competition: *Provided further*, That the Federal share of the cost of a project carried out from funds made available under this heading in this Act shall be 80 percent for large and medium hub airports and 95 percent for small hub, nonhub, and nonprimary airports: *Provided further*, That a grant made from funds made available under this heading in this Act shall be treated as having been made pursuant to the Secretary's authority under section 47104(a) of title 49, United States Code: *Provided further*, That the Secretary may provide grants from funds made available under this heading in this Act for a project at any airport that is eligible to receive a grant from the discretionary fund under section 47115(a) of title 49, United States Code: *Provided further*, That in making awards from funds made available under this heading in this Act, the Secretary shall provide a preference to projects that achieve a complete development objective, even if awards for the project must be phased, and the Secretary shall prioritize projects that have received partial awards: *Provided further*, That up to 3 percent of the amounts made available under this heading in this Act in each fiscal year shall be for personnel, contracting and other costs to administer and oversee grants, of which \$1,000,000 in each fiscal year shall be transferred to the Office of Inspector General of the Department of Transportation for oversight of funding provided to the Department of Transportation in this title in this Act: *Provided further*, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985.

## FEDERAL HIGHWAY ADMINISTRATION

## HIGHWAY INFRASTRUCTURE PROGRAM

## (INCLUDING TRANSFER OF FUNDS)

State and local  
governments.  
Electric vehicles.

For an additional amount for “Highway Infrastructure Programs”, \$47,272,000,000, to remain available until expended except as otherwise provided under this heading: *Provided*, That of the amount provided under this heading in this Act, \$9,454,400,000, to remain available until September 30, 2025, shall be made available for fiscal year 2022, \$9,454,400,000, to remain available until September 30, 2026, shall be made available for fiscal year 2023, \$9,454,400,000, to remain available until September 30, 2027, shall be made available for fiscal year 2024, \$9,454,400,000, to remain



paragraph in this Act in each fiscal year shall be for the administration and operations of the Federal Highway Administration: *Provided further*, That, after setting aside funds under the third proviso of this paragraph in this Act the Secretary shall distribute the remaining funds made available under this paragraph in this Act among States as follows—

(A) 75 percent by the proportion that the total cost of replacing all bridges classified in poor condition in such State bears to the sum of the total cost to replace all bridges classified in poor condition in all States; and

(B) 25 percent by the proportion that the total cost of rehabilitating all bridges classified in fair condition in such State bears to the sum of the total cost to rehabilitate all bridges classified in fair condition in all States:

*Provided further*, That the amounts calculated under the preceding proviso shall be adjusted such that each State receives, for each of fiscal years 2022 through 2026, no less than \$45,000,000 under such proviso: *Provided further*, That for purposes of the preceding 2 provisos, the Secretary shall determine replacement and rehabilitation costs based on the average unit costs of bridges from 2016 through 2020, as submitted by States to the Federal Highway Administration, as required by section 144(b)(5) of title 23, United States Code: *Provided further*, That for purposes of determining the distribution of funds to States under this paragraph in this Act, the Secretary shall calculate the total deck area of bridges classified as in poor or fair condition based on the National Bridge Inventory as of December 31, 2020: *Provided further*, That, subject to the following proviso, funds made available under this paragraph in this Act that are distributed to States shall be used for highway bridge replacement, rehabilitation, preservation, protection, or construction projects on public roads: *Provided further*, That of the funds made available under this paragraph in this Act that are distributed to a State, 15 percent shall be set aside for use on off-system bridges for the same purposes as described in the preceding proviso: *Provided further*, That, except as provided in the following proviso, for funds made available under this paragraph in this Act that are distributed to States, the Federal share shall be determined in accordance with section 120 of title 23, United States Code: *Provided further*, That for funds made available under this paragraph in this Act that are distributed to States and used on an off-system bridge that is owned by a county, town, township, city, municipality or other local agency, or federally-recognized Tribe the Federal share shall be 100 percent;

Determination.  
Replacement  
costs.

Determination.  
Bridges.

Determination.

(2) \$5,000,000,000, to remain available until expended for amounts made available for each of fiscal years 2022 through 2026, shall be to carry out a National Electric Vehicle Formula Program (referred to in this paragraph in this Act as the “Program”) to provide funding to States to strategically deploy electric vehicle charging infrastructure and to establish an interconnected network to facilitate data collection, access, and reliability: *Provided*, That funds made available under this paragraph in this Act shall be used for: (1) the acquisition and installation of electric vehicle charging infrastructure to serve as a catalyst for the deployment of such infrastructure and to connect it to a network to facilitate data collection, access, and reliability; (2) proper operation and maintenance of electric vehicle charging infrastructure; and (3) data sharing

Deadline. Plan. Web posting.	about electric vehicle charging infrastructure to ensure the long-term success of investments made under this paragraph in this Act: <i>Provided further</i> , That for each of fiscal years 2022 through 2026, the Secretary shall distribute among the States the funds made available under this paragraph in this Act so that each State receives an amount equal to the proportion that the total base apportionment or allocation determined for the State under subsection (c) of section 104 or under section 165 of title 23, United States Code, bears to the total base apportionments or allocations for all States under subsection (c) of section 104 and section 165 of title 23, United States Code: <i>Provided further</i> , That the Federal share payable for the cost of a project funded under this paragraph in this Act shall be 80 percent: <i>Provided further</i> , That the Secretary shall establish a deadline by which a State shall provide a plan to the Secretary, in such form and such manner that the Secretary requires (to be made available on the Department's website), describing how such State intends to use funds distributed to the State under this paragraph in this Act to carry out the Program for each fiscal year in which funds are made available: <i>Provided further</i> , That, not later than 120 days after the deadline established in the preceding proviso, the Secretary shall make publicly available on the Department's website and submit to the House Committee on Transportation and Infrastructure, the Senate Committee on Environment and Public Works, and the House and Senate Committees on Appropriations, a report summarizing each plan submitted by a State to the Department of Transportation and an assessment of how such plans make progress towards the establishment of a national network of electric vehicle charging infrastructure: <i>Provided further</i> , That if a State fails to submit the plan required under the fourth proviso of this paragraph in this Act to the Secretary by the date specified in such proviso, or if the Secretary determines a State has not taken action to carry out its plan, the Secretary may withhold or withdraw, as applicable, funds made available under this paragraph in this Act for the fiscal year from the State and award such funds on a competitive basis to local jurisdictions within the State for use on projects that meet the eligibility requirements under this paragraph in this Act: <i>Provided further</i> , That, prior to the Secretary making a determination that a State has not taken actions to carry out its plan, the Secretary shall notify the State, consult with the State, and identify actions that can be taken to rectify concerns, and provide at least 90 days for the State to rectify concerns and take action to carry out its plan: <i>Provided further</i> , That the Secretary shall provide notice to a State on the intent to withhold or withdraw funds not less than 60 days before withholding or withdrawing any funds, during which time the States shall have an opportunity to appeal a decision to withhold or withdraw funds directly to the Secretary: <i>Provided further</i> , That if the Secretary determines that any funds withheld or withdrawn from a State under the preceding proviso cannot be fully awarded to local jurisdictions within the State under the preceding proviso in a manner consistent with the purpose of this paragraph in this Act, any such funds remaining shall be distributed among other States (except States for which funds for that fiscal year
Deadline. Public information. Web posting. Reports. Summaries. Assessment.	
Determination.	
Notification. Consultation. Time period.	
Notification. Deadline. Appeal.	
Determination.	

have been withheld or withdrawn under the preceding proviso) in the same manner as funds distributed for that fiscal year under the second proviso under this paragraph in this Act, except that the ratio shall be adjusted to exclude States for which funds for that fiscal year have been withheld or withdrawn under the preceding proviso: *Provided further*, That funds distributed under the preceding proviso shall only be available to carry out this paragraph in this Act: *Provided further*, That funds made available under this paragraph in this Act may be used to contract with a private entity for acquisition and installation of publicly accessible electric vehicle charging infrastructure and the private entity may pay the non-Federal share of the cost of a project funded under this paragraph: *Provided further*, That funds made available under this paragraph in this Act shall be for projects directly related to the charging of a vehicle and only for electric vehicle charging infrastructure that is open to the general public or to authorized commercial motor vehicle operators from more than one company: *Provided further*, That any electric vehicle charging infrastructure acquired or installed with funds made available under this paragraph in this Act shall be located along a designated alternative fuel corridor: *Provided further*, That no later than 90 days after the date of enactment of this Act, the Secretary of Transportation, in coordination with the Secretary of Energy, shall develop guidance for States and localities to strategically deploy electric vehicle charging infrastructure, consistent with this paragraph in this Act: *Provided further*, That the Secretary of Transportation, in coordination with the Secretary of Energy, shall consider the following in developing the guidance described in the preceding proviso: (1) the distance between publicly available electric vehicle charging infrastructure; (2) connections to the electric grid, including electric distribution upgrades; vehicle-to-grid integration, including smart charge management or other protocols that can minimize impacts to the grid; alignment with electric distribution interconnection processes, and plans for the use of renewable energy sources to power charging and energy storage; (3) the proximity of existing off-highway travel centers, fuel retailers, and small businesses to electric vehicle charging infrastructure acquired or funded under this paragraph in this Act; (4) the need for publicly available electric vehicle charging infrastructure in rural corridors and underserved or disadvantaged communities; (5) the long-term operation and maintenance of publicly available electric vehicle charging infrastructure to avoid stranded assets and protect the investment of public funds in that infrastructure; (6) existing private, national, State, local, Tribal, and territorial government electric vehicle charging infrastructure programs and incentives; (7) fostering enhanced, coordinated, public-private or private investment in electric vehicle charging infrastructure; (8) meeting current and anticipated market demands for electric vehicle charging infrastructure, including with regard to power levels and charging speed, and minimizing the time to charge current and anticipated vehicles; and (9) any other factors, as determined by the Secretary: *Provided further*, That if a State determines, and the Secretary certifies, that the designated alternative fuel corridors in the States are fully built out, then the State may use funds provided

Contracts.

Deadline.  
Coordination.

Coordination.

Determination.  
Certification.

Public Law 117–169  
117th Congress

An Act

Aug. 16, 2022  
[H.R. 5376]

To provide for reconciliation pursuant to title II of S. Con. Res. 14.

Appropriations  
authorizations.

*Be it enacted by the Senate and House of Representatives of  
the United States of America in Congress assembled,*

## TITLE I—COMMITTEE ON FINANCE

### Subtitle A—Deficit Reduction

#### SECTION 10001. AMENDMENT OF 1986 CODE.

Except as otherwise expressly provided, whenever in this subtitle an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Internal Revenue Code of 1986.

### PART 1—CORPORATE TAX REFORM

#### SEC. 10101. CORPORATE ALTERNATIVE MINIMUM TAX.

##### (a) IMPOSITION OF TAX.—

26 USC 55.

(1) IN GENERAL.—Paragraph (2) of section 55(b) is amended to read as follows:

##### “(2) CORPORATIONS.—

“(A) APPLICABLE CORPORATIONS.—In the case of an applicable corporation, the tentative minimum tax for the taxable year shall be the excess of—

“(i) 15 percent of the adjusted financial statement income for the taxable year (as determined under section 56A), over

“(ii) the corporate AMT foreign tax credit for the taxable year.

“(B) OTHER CORPORATIONS.—In the case of any corporation which is not an applicable corporation, the tentative minimum tax for the taxable year shall be zero.”.

(2) APPLICABLE CORPORATION.—Section 59 is amended by adding at the end the following new subsection:

Determinations.

“(k) APPLICABLE CORPORATION.—For purposes of this part—

##### “(1) APPLICABLE CORPORATION DEFINED.—

“(A) IN GENERAL.—The term ‘applicable corporation’ means, with respect to any taxable year, any corporation (other than an S corporation, a regulated investment company, or a real estate investment trust) which meets the

## TITLE V—COMMITTEE ON ENERGY AND NATURAL RESOURCES

### Subtitle A—Energy

#### PART 1—GENERAL PROVISIONS

##### SEC. 50111. DEFINITIONS.

42 USC 17113b  
note.

In this subtitle:

(1) GREENHOUSE GAS.—The term “greenhouse gas” has the meaning given the term in section 1610(a) of the Energy Policy Act of 1992 (42 U.S.C. 13389(a)).

(2) SECRETARY.—The term “Secretary” means the Secretary of Energy.

(3) STATE.—The term “State” means a State, the District of Columbia, and a United States Insular Area (as that term is defined in section 50211).

(4) STATE ENERGY OFFICE.—The term “State energy office” has the meaning given the term in section 124(a) of the Energy Policy Act of 2005 (42 U.S.C. 15821(a)).

(5) STATE ENERGY PROGRAM.—The term “State Energy Program” means the State Energy Program established pursuant to part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 through 6326).

#### PART 2—RESIDENTIAL EFFICIENCY AND ELECTRIFICATION REBATES

##### SEC. 50121. HOME ENERGY PERFORMANCE-BASED, WHOLE-HOUSE REBATES.

42 USC 18795.

(a) APPROPRIATION.—

(1) IN GENERAL.—In addition to amounts otherwise available, there is appropriated to the Secretary for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$4,300,000,000, to remain available through September 30, 2031, to carry out a program to award grants to State energy offices to develop and implement a HOMES rebate program.

(2) ALLOCATION OF FUNDS.—

(A) IN GENERAL.—The Secretary shall reserve funds made available under paragraph (1) for each State energy office—

(i) in accordance with the allocation formula for the State Energy Program in effect on January 1, 2022; and

(ii) to be distributed to a State energy office if the application of the State energy office under subsection (b) is approved.

Effective date.

(B) ADDITIONAL FUNDS.—Not earlier than 2 years after the date of enactment of this Act, any money reserved under subparagraph (A) but not distributed under clause (ii) of that subparagraph shall be redistributed to the State energy offices operating a HOMES rebate program using a grant received under this section in proportion to the

Deadline.



609.2 of title 10, Code of Federal Regulations)” before the period at the end.

(f) SOURCE OF PAYMENTS.—Section 1702(b) of the Energy Policy Act of 2005 (42 U.S.C. 16512(b)(2)) is amended by adding at the end the following:

“(3) SOURCE OF PAYMENTS.—The source of a payment received from a borrower under subparagraph (A) or (B) of paragraph (2) may not be a loan or other debt obligation that is made or guaranteed by the Federal Government.”.

**SEC. 50142. ADVANCED TECHNOLOGY VEHICLE MANUFACTURING.**

(a) APPROPRIATION.—In addition to amounts otherwise available, there is appropriated to the Secretary for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$3,000,000,000, to remain available through September 30, 2028, for the costs of providing direct loans under section 136(d) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17013(d)): *Provided*, That funds appropriated by this section may be used for the costs of providing direct loans for reequipping, expanding, or establishing a manufacturing facility in the United States to produce, or for engineering integration performed in the United States of, advanced technology vehicles described in subparagraph (C), (D), (E), or (F) of section 136(a)(1) of such Act (42 U.S.C. 17013(a)(1)) only if such advanced technology vehicles emit, under any possible operational mode or condition, low or zero exhaust emissions of greenhouse gases.

(b) ADMINISTRATIVE COSTS.—The Secretary shall reserve not more than \$25,000,000 of amounts made available under subsection (a) for administrative costs of providing loans as described in subsection (a).

(c) ELIMINATION OF LOAN PROGRAM CAP.—Section 136(d)(1) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17013(d)(1)) is amended by striking “a total of not more than \$25,000,000,000 in”.

**SEC. 50143. DOMESTIC MANUFACTURING CONVERSION GRANTS.**

(a) APPROPRIATION.—In addition to amounts otherwise available, there is appropriated to the Secretary for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$2,000,000,000, to remain available through September 30, 2031, to provide grants for domestic production of efficient hybrid, plug-in electric hybrid, plug-in electric drive, and hydrogen fuel cell electric vehicles, in accordance with section 712 of the Energy Policy Act of 2005 (42 U.S.C. 16062).

Requirement.

(b) COST SHARE.—The Secretary shall require a recipient of a grant provided under subsection (a) to provide not less than 50 percent of the cost of the project carried out using the grant.

(c) ADMINISTRATIVE COSTS.—The Secretary shall reserve not more than 3 percent of amounts made available under subsection (a) for administrative costs of making grants described in such subsection (a) pursuant to section 712 of the Energy Policy Act of 2005 (42 U.S.C. 16062).

**SEC. 50144. ENERGY INFRASTRUCTURE REINVESTMENT FINANCING.**

(a) APPROPRIATION.—In addition to amounts otherwise available, there is appropriated to the Secretary for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$5,000,000,000, to remain available through September 30, 2026,

Service, the Bureau of Land Management, the Bureau of Ocean Energy Management, the Bureau of Reclamation, the Bureau of Safety and Environmental Enforcement, and the Office of Surface Mining Reclamation and Enforcement.

## TITLE VI—COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

### Subtitle A—Air Pollution

#### SEC. 60101. CLEAN HEAVY-DUTY VEHICLES.

The Clean Air Act is amended by inserting after section 131 of such Act (42 U.S.C. 7431) the following:

#### “SEC. 132. CLEAN HEAVY-DUTY VEHICLES.

42 USC 7432.

“(a) APPROPRIATIONS.—

“(1) IN GENERAL.—In addition to amounts otherwise available, there is appropriated to the Administrator for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$600,000,000, to remain available until September 30, 2031, to carry out this section.

“(2) NONATTAINMENT AREAS.—In addition to amounts otherwise available, there is appropriated to the Administrator for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$400,000,000, to remain available until September 30, 2031, to make awards under this section to eligible recipients and to eligible contractors that propose to replace eligible vehicles to serve 1 or more communities located in an air quality area designated pursuant to section 107 as nonattainment for any air pollutant.

“(3) RESERVATION.—Of the funds appropriated by paragraph (1), the Administrator shall reserve 3 percent for administrative costs necessary to carry out this section.

“(b) PROGRAM.—Beginning not later than 180 days after the date of enactment of this section, the Administrator shall implement a program to make awards of grants and rebates to eligible recipients, and to make awards of contracts to eligible contractors for providing rebates, for up to 100 percent of costs for—

Deadline.  
Grants.  
Rebates.

“(1) the incremental costs of replacing an eligible vehicle that is not a zero-emission vehicle with a zero-emission vehicle, as determined by the Administrator based on the market value of the vehicles;

Determination.

“(2) purchasing, installing, operating, and maintaining infrastructure needed to charge, fuel, or maintain zero-emission vehicles;

“(3) workforce development and training to support the maintenance, charging, fueling, and operation of zero-emission vehicles; and

“(4) planning and technical activities to support the adoption and deployment of zero-emission vehicles.

“(c) APPLICATIONS.—To seek an award under this section, an eligible recipient or eligible contractor shall submit to the Administrator an application at such time, in such manner, and containing such information as the Administrator shall prescribe.

“(d) DEFINITIONS.—For purposes of this section:

“(1) **ELIGIBLE CONTRACTOR.**—The term ‘eligible contractor’ means a contractor that has the capacity—

“(A) to sell, lease, license, or contract for service zero-emission vehicles, or charging or other equipment needed to charge, fuel, or maintain zero-emission vehicles, to individuals or entities that own, lease, license, or contract for service an eligible vehicle; or

“(B) to arrange financing for such a sale, lease, license, or contract for service.

“(2) **ELIGIBLE RECIPIENT.**—The term ‘eligible recipient’ means—

“(A) a State;

“(B) a municipality;

“(C) an Indian tribe; or

“(D) a nonprofit school transportation association.

“(3) **ELIGIBLE VEHICLE.**—The term ‘eligible vehicle’ means a Class 6 or Class 7 heavy-duty vehicle as defined in section 1037.801 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this section).

“(4) **GREENHOUSE GAS.**—The term ‘greenhouse gas’ means the air pollutants carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride.

“(5) **ZERO-EMISSION VEHICLE.**—The term ‘zero-emission vehicle’ means a vehicle that has a drivetrain that produces, under any possible operational mode or condition, zero exhaust emissions of—

“(A) any air pollutant that is listed pursuant to section 108(a) (or any precursor to such an air pollutant); and

“(B) any greenhouse gas.”.

#### **SEC. 60102. GRANTS TO REDUCE AIR POLLUTION AT PORTS.**

The Clean Air Act is amended by inserting after section 132 of such Act, as added by section 60101 of this Act, the following:

42 USC 7433.

#### **“SEC. 133. GRANTS TO REDUCE AIR POLLUTION AT PORTS.**

“(a) **APPROPRIATIONS.**—

“(1) **GENERAL ASSISTANCE.**—In addition to amounts otherwise available, there is appropriated to the Administrator for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$2,250,000,000, to remain available until September 30, 2027, to award rebates and grants to eligible recipients on a competitive basis—

“(A) to purchase or install zero-emission port equipment or technology for use at, or to directly serve, one or more ports;

“(B) to conduct any relevant planning or permitting in connection with the purchase or installation of such zero-emission port equipment or technology; and

“(C) to develop qualified climate action plans.

“(2) **NONATTAINMENT AREAS.**—In addition to amounts otherwise available, there is appropriated to the Administrator for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$750,000,000, to remain available until September 30, 2027, to award rebates and grants to eligible recipients to carry out activities described in paragraph (1) with respect to ports located in air quality areas designated pursuant to section 107 as nonattainment for an air pollutant.

projects that result in additional through travel lanes for single occupant passenger vehicles.

Review. “(5) MATERIALS IDENTIFICATION.—The Administrator shall review the low-embodied carbon construction materials and products identified by the Administrator of the Environmental Protection Agency and shall identify low-embodied carbon construction materials and products—

“(A) appropriate for use in projects eligible under this title; and

“(B) eligible for reimbursement or incentives under this section.

“(c) DEFINITIONS.—In this section:

“(1) ADMINISTRATOR.—The term ‘Administrator’ means the Administrator of the Federal Highway Administration.

“(2) ELIGIBLE RECIPIENT.—The term ‘eligible recipient’ means—

“(A) a State;

“(B) a unit of local government;

“(C) a political subdivision of a State;

“(D) a territory of the United States;

“(E) an entity described in section 207(m)(1)(E);

“(F) a recipient of funds under section 203;

“(G) a metropolitan planning organization (as defined in section 134(b)(2)); or

“(H) a special purpose district or public authority with a transportation function.

“(3) GREENHOUSE GAS.—The term ‘greenhouse gas’ means the air pollutants carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride.”

23 USC 101 prec. 23, United States Code, is further amended by adding at the end the following:

“179. Low-carbon transportation materials grants.”.

## **TITLE VII—COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS**

### **SEC. 70001. DHS OFFICE OF CHIEF READINESS SUPPORT OFFICER.**

In addition to the amounts otherwise available, there is appropriated to the Secretary of Homeland Security for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$500,000,000, to remain available until September 30, 2028, for the Office of the Chief Readiness Support Officer to carry out sustainability and environmental programs.

### **SEC. 70002. UNITED STATES POSTAL SERVICE CLEAN FLEETS.**

In addition to amounts otherwise available, there is appropriated to the United States Postal Service for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, the following amounts, to be deposited into the Postal Service Fund established under section 2003 of title 39, United States Code:

- (1) \$1,290,000,000, to remain available through September 30, 2031, for the purchase of zero-emission delivery vehicles.

(2) \$1,710,000,000, to remain available through September 30, 2031, for the purchase, design, and installation of the requisite infrastructure to support zero-emission delivery vehicles at facilities that the United States Postal Service owns or leases from non-Federal entities.

**SEC. 70003. UNITED STATES POSTAL SERVICE OFFICE OF INSPECTOR GENERAL.**

In addition to amounts otherwise available, there is appropriated to the Office of Inspector General of the United States Postal Service for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$15,000,000, to remain available through September 30, 2031, to support oversight of United States Postal Service activities implemented pursuant to this Act.

**SEC. 70004. GOVERNMENT ACCOUNTABILITY OFFICE OVERSIGHT.**

In addition to amounts otherwise available, there is appropriated to the Comptroller General of the United States for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$25,000,000, to remain available until September 30, 2031, for necessary expenses of the Government Accountability Office to support the oversight of—

(1) the distribution and use of funds appropriated under this Act; and

(2) whether the economic, social, and environmental impacts of the funds described in paragraph (1) are equitable.

**SEC. 70005. OFFICE OF MANAGEMENT AND BUDGET OVERSIGHT.**

In addition to amounts otherwise available, there are appropriated to the Director of the Office of Management and Budget for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$25,000,000, to remain available until September 30, 2026, for necessary expenses to—

(1) oversee the implementation of this Act; and

(2) track labor, equity, and environmental standards and performance.

**SEC. 70006. FEMA BUILDING MATERIALS PROGRAM.**

Through September 30, 2026, the Administrator of the Federal Emergency Management Agency may provide financial assistance under sections 203(h), 404(a), and 406(b) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5133(h), 42 U.S.C. 5170c(a), 42 U.S.C. 5172(b)) for—

(1) costs associated with low-carbon materials; and

(2) incentives that encourage low-carbon and net-zero energy projects.

Time period.

**SEC. 70007. FEDERAL PERMITTING IMPROVEMENT STEERING COUNCIL ENVIRONMENTAL REVIEW IMPROVEMENT FUND MANDATORY FUNDING.**

In addition to amounts otherwise available, there is appropriated to the Federal Permitting Improvement Steering Council Environmental Review Improvement Fund, out of any money in the Treasury not otherwise appropriated, \$350,000,000 for fiscal year 2023, to remain available through September 30, 2031.



# Presidential Documents

**Title 3—****Executive Order 12866 of September 30, 1993****The President****Regulatory Planning and Review**

The American people deserve a regulatory system that works for them, not against them: a regulatory system that protects and improves their health, safety, environment, and well-being and improves the performance of the economy without imposing unacceptable or unreasonable costs on society; regulatory policies that recognize that the private sector and private markets are the best engine for economic growth; regulatory approaches that respect the role of State, local, and tribal governments; and regulations that are effective, consistent, sensible, and understandable. We do not have such a regulatory system today.

With this Executive order, the Federal Government begins a program to reform and make more efficient the regulatory process. The objectives of this Executive order are to enhance planning and coordination with respect to both new and existing regulations; to reaffirm the primacy of Federal agencies in the regulatory decision-making process; to restore the integrity and legitimacy of regulatory review and oversight; and to make the process more accessible and open to the public. In pursuing these objectives, the regulatory process shall be conducted so as to meet applicable statutory requirements and with due regard to the discretion that has been entrusted to the Federal agencies.

Accordingly, by the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

**Section 1. *Statement of Regulatory Philosophy and Principles.***

(a) *The Regulatory Philosophy.* Federal agencies should promulgate only such regulations as are required by law, are necessary to interpret the law, or are made necessary by compelling public need, such as material failures of private markets to protect or improve the health and safety of the public, the environment, or the well-being of the American people. In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.

(b) *The Principles of Regulation.* To ensure that the agencies' regulatory programs are consistent with the philosophy set forth above, agencies should adhere to the following principles, to the extent permitted by law and where applicable:

- (1) Each agency shall identify the problem that it intends to address (including, where applicable, the failures of private markets or public institutions that warrant new agency action) as well as assess the significance of that problem.
- (2) Each agency shall examine whether existing regulations (or other law) have created, or contributed to, the problem that a new regulation is

intended to correct and whether those regulations (or other law) should be modified to achieve the intended goal of regulation more effectively.

(3) Each agency shall identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public.

(4) In setting regulatory priorities, each agency shall consider, to the extent reasonable, the degree and nature of the risks posed by various substances or activities within its jurisdiction.

(5) When an agency determines that a regulation is the best available method of achieving the regulatory objective, it shall design its regulations in the most cost-effective manner to achieve the regulatory objective. In doing so, each agency shall consider incentives for innovation, consistency, predictability, the costs of enforcement and compliance (to the government, regulated entities, and the public), flexibility, distributive impacts, and equity.

(6) Each agency shall assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs.

(7) Each agency shall base its decisions on the best reasonably obtainable scientific, technical, economic, and other information concerning the need for, and consequences of, the intended regulation.

(8) Each agency shall identify and assess alternative forms of regulation and shall, to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt.

(9) Wherever feasible, agencies shall seek views of appropriate State, local, and tribal officials before imposing regulatory requirements that might significantly or uniquely affect those governmental entities. Each agency shall assess the effects of Federal regulations on State, local, and tribal governments, including specifically the availability of resources to carry out those mandates, and seek to minimize those burdens that uniquely or significantly affect such governmental entities, consistent with achieving regulatory objectives. In addition, as appropriate, agencies shall seek to harmonize Federal regulatory actions with related State, local, and tribal regulatory and other governmental functions.

(10) Each agency shall avoid regulations that are inconsistent, incompatible, or duplicative with its other regulations or those of other Federal agencies.

(11) Each agency shall tailor its regulations to impose the least burden on society, including individuals, businesses of differing sizes, and other entities (including small communities and governmental entities), consistent with obtaining the regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations.

(12) Each agency shall draft its regulations to be simple and easy to understand, with the goal of minimizing the potential for uncertainty and litigation arising from such uncertainty.

**Sec. 2. Organization.** An efficient regulatory planning and review process is vital to ensure that the Federal Government's regulatory system best serves the American people.

(a) *The Agencies.* Because Federal agencies are the repositories of significant substantive expertise and experience, they are responsible for developing regulations and assuring that the regulations are consistent with applicable law, the President's priorities, and the principles set forth in this Executive order.

(b) *The Office of Management and Budget.* Coordinated review of agency rulemaking is necessary to ensure that regulations are consistent with applicable law, the President's priorities, and the principles set forth in this Executive order, and that decisions made by one agency do not conflict with the policies or actions taken or planned by another agency. The Office of Management and Budget (OMB) shall carry out that review function. Within OMB, the Office of Information and Regulatory Affairs (OIRA) is the repository of expertise concerning regulatory issues, including methodologies and procedures that affect more than one agency, this Executive order, and the President's regulatory policies. To the extent permitted by law, OMB shall provide guidance to agencies and assist the President, the Vice President, and other regulatory policy advisors to the President in regulatory planning and shall be the entity that reviews individual regulations, as provided by this Executive order.

(c) *The Vice President.* The Vice President is the principal advisor to the President on, and shall coordinate the development and presentation of recommendations concerning, regulatory policy, planning, and review, as set forth in this Executive order. In fulfilling their responsibilities under this Executive order, the President and the Vice President shall be assisted by the regulatory policy advisors within the Executive Office of the President and by such agency officials and personnel as the President and the Vice President may, from time to time, consult.

**Sec. 3. Definitions.** For purposes of this Executive order: (a) "Advisors" refers to such regulatory policy advisors to the President as the President and Vice President may from time to time consult, including, among others: (1) the Director of OMB; (2) the Chair (or another member) of the Council of Economic Advisers; (3) the Assistant to the President for Economic Policy; (4) the Assistant to the President for Domestic Policy; (5) the Assistant to the President for National Security Affairs; (6) the Assistant to the President for Science and Technology; (7) the Assistant to the President for Intergovernmental Affairs; (8) the Assistant to the President and Staff Secretary; (9) the Assistant to the President and Chief of Staff to the Vice President; (10) the Assistant to the President and Counsel to the President; (11) the Deputy Assistant to the President and Director of the White House Office on Environmental Policy; and (12) the Administrator of OIRA, who also shall coordinate communications relating to this Executive order among the agencies, OMB, the other Advisors, and the Office of the Vice President.

(b) "Agency," unless otherwise indicated, means any authority of the United States that is an "agency" under 44 U.S.C. 3502(1), other than those considered to be independent regulatory agencies, as defined in 44 U.S.C. 3502(10).

(c) "Director" means the Director of OMB.

(d) "Regulation" or "rule" means an agency statement of general applicability and future effect, which the agency intends to have the force and effect of law, that is designed to implement, interpret, or prescribe law or policy or to describe the procedure or practice requirements of an agency. It does not, however, include:

(1) Regulations or rules issued in accordance with the formal rulemaking provisions of 5 U.S.C. 556, 557;

(2) Regulations or rules that pertain to a military or foreign affairs function of the United States, other than procurement regulations and regulations involving the import or export of non-defense articles and services;

(3) Regulations or rules that are limited to agency organization, management, or personnel matters; or

(4) Any other category of regulations exempted by the Administrator of OIRA.

(e) "Regulatory action" means any substantive action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices

of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking.

(f) "Significant regulatory action" means any regulatory action that is likely to result in a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive order.

**Sec. 4. Planning Mechanism.** In order to have an effective regulatory program, to provide for coordination of regulations, to maximize consultation and the resolution of potential conflicts at an early stage, to involve the public and its State, local, and tribal officials in regulatory planning, and to ensure that new or revised regulations promote the President's priorities and the principles set forth in this Executive order, these procedures shall be followed, to the extent permitted by law:

(a) *Agencies' Policy Meeting.* Early in each year's planning cycle, the Vice President shall convene a meeting of the Advisors and the heads of agencies to seek a common understanding of priorities and to coordinate regulatory efforts to be accomplished in the upcoming year.

(b) *Unified Regulatory Agenda.* For purposes of this subsection, the term "agency" or "agencies" shall also include those considered to be independent regulatory agencies, as defined in 44 U.S.C. 3502(10). Each agency shall prepare an agenda of all regulations under development or review, at a time and in a manner specified by the Administrator of OIRA. The description of each regulatory action shall contain, at a minimum, a regulation identifier number, a brief summary of the action, the legal authority for the action, any legal deadline for the action, and the name and telephone number of a knowledgeable agency official. Agencies may incorporate the information required under 5 U.S.C. 602 and 41 U.S.C. 402 into these agendas.

(c) *The Regulatory Plan.* For purposes of this subsection, the term "agency" or "agencies" shall also include those considered to be independent regulatory agencies, as defined in 44 U.S.C. 3502(10). (1) As part of the Unified Regulatory Agenda, beginning in 1994, each agency shall prepare a Regulatory Plan (Plan) of the most important significant regulatory actions that the agency reasonably expects to issue in proposed or final form in that fiscal year or thereafter. The Plan shall be approved personally by the agency head and shall contain at a minimum:

- (A) A statement of the agency's regulatory objectives and priorities and how they relate to the President's priorities;
- (B) A summary of each planned significant regulatory action including, to the extent possible, alternatives to be considered and preliminary estimates of the anticipated costs and benefits;
- (C) A summary of the legal basis for each such action, including whether any aspect of the action is required by statute or court order;
- (D) A statement of the need for each such action and, if applicable, how the action will reduce risks to public health, safety, or the environment, as well as how the magnitude of the risk addressed by the action relates to other risks within the jurisdiction of the agency;
- (E) The agency's schedule for action, including a statement of any applicable statutory or judicial deadlines; and

(F) The name, address, and telephone number of a person the public may contact for additional information about the planned regulatory action.

(2) Each agency shall forward its Plan to OIRA by June 1st of each year.

(3) Within 10 calendar days after OIRA has received an agency's Plan, OIRA shall circulate it to other affected agencies, the Advisors, and the Vice President.

(4) An agency head who believes that a planned regulatory action of another agency may conflict with its own policy or action taken or planned shall promptly notify, in writing, the Administrator of OIRA, who shall forward that communication to the issuing agency, the Advisors, and the Vice President.

(5) If the Administrator of OIRA believes that a planned regulatory action of an agency may be inconsistent with the President's priorities or the principles set forth in this Executive order or may be in conflict with any policy or action taken or planned by another agency, the Administrator of OIRA shall promptly notify, in writing, the affected agencies, the Advisors, and the Vice President.

(6) The Vice President, with the Advisors' assistance, may consult with the heads of agencies with respect to their Plans and, in appropriate instances, request further consideration or inter-agency coordination.

(7) The Plans developed by the issuing agency shall be published annually in the October publication of the Unified Regulatory Agenda. This publication shall be made available to the Congress; State, local, and tribal governments; and the public. Any views on any aspect of any agency Plan, including whether any planned regulatory action might conflict with any other planned or existing regulation, impose any unintended consequences on the public, or confer any unclaimed benefits on the public, should be directed to the issuing agency, with a copy to OIRA.

(d) *Regulatory Working Group.* Within 30 days of the date of this Executive order, the Administrator of OIRA shall convene a Regulatory Working Group ("Working Group"), which shall consist of representatives of the heads of each agency that the Administrator determines to have significant domestic regulatory responsibility, the Advisors, and the Vice President. The Administrator of OIRA shall chair the Working Group and shall periodically advise the Vice President on the activities of the Working Group. The Working Group shall serve as a forum to assist agencies in identifying and analyzing important regulatory issues (including, among others (1) the development of innovative regulatory techniques, (2) the methods, efficacy, and utility of comparative risk assessment in regulatory decision-making, and (3) the development of short forms and other streamlined regulatory approaches for small businesses and other entities). The Working Group shall meet at least quarterly and may meet as a whole or in subgroups of agencies with an interest in particular issues or subject areas. To inform its discussions, the Working Group may commission analytical studies and reports by OIRA, the Administrative Conference of the United States, or any other agency.

(e) *Conferences.* The Administrator of OIRA shall meet quarterly with representatives of State, local, and tribal governments to identify both existing and proposed regulations that may uniquely or significantly affect those governmental entities. The Administrator of OIRA shall also convene, from time to time, conferences with representatives of businesses, nongovernmental organizations, and the public to discuss regulatory issues of common concern.

**Sec. 5. Existing Regulations.** In order to reduce the regulatory burden on the American people, their families, their communities, their State, local, and tribal governments, and their industries; to determine whether regulations promulgated by the executive branch of the Federal Government have become unjustified or unnecessary as a result of changed circumstances; to confirm that regulations are both compatible with each other and not



duplicative or inappropriately burdensome in the aggregate; to ensure that all regulations are consistent with the President's priorities and the principles set forth in this Executive order, within applicable law; and to otherwise improve the effectiveness of existing regulations: (a) Within 90 days of the date of this Executive order, each agency shall submit to OIRA a program, consistent with its resources and regulatory priorities, under which the agency will periodically review its existing significant regulations to determine whether any such regulations should be modified or eliminated so as to make the agency's regulatory program more effective in achieving the regulatory objectives, less burdensome, or in greater alignment with the President's priorities and the principles set forth in this Executive order. Any significant regulations selected for review shall be included in the agency's annual Plan. The agency shall also identify any legislative mandates that require the agency to promulgate or continue to impose regulations that the agency believes are unnecessary or outdated by reason of changed circumstances.

(b) The Administrator of OIRA shall work with the Regulatory Working Group and other interested entities to pursue the objectives of this section. State, local, and tribal governments are specifically encouraged to assist in the identification of regulations that impose significant or unique burdens on those governmental entities and that appear to have outlived their justification or be otherwise inconsistent with the public interest.

(c) The Vice President, in consultation with the Advisors, may identify for review by the appropriate agency or agencies other existing regulations of an agency or groups of regulations of more than one agency that affect a particular group, industry, or sector of the economy, or may identify legislative mandates that may be appropriate for reconsideration by the Congress.

**Sec. 6. Centralized Review of Regulations.** The guidelines set forth below shall apply to all regulatory actions, for both new and existing regulations, by agencies other than those agencies specifically exempted by the Administrator of OIRA:

(a) *Agency Responsibilities.* (1) Each agency shall (consistent with its own rules, regulations, or procedures) provide the public with meaningful participation in the regulatory process. In particular, before issuing a notice of proposed rulemaking, each agency should, where appropriate, seek the involvement of those who are intended to benefit from and those expected to be burdened by any regulation (including, specifically, State, local, and tribal officials). In addition, each agency should afford the public a meaningful opportunity to comment on any proposed regulation, which in most cases should include a comment period of not less than 60 days. Each agency also is directed to explore and, where appropriate, use consensual mechanisms for developing regulations, including negotiated rulemaking.

(2) Within 60 days of the date of this Executive order, each agency head shall designate a Regulatory Policy Officer who shall report to the agency head. The Regulatory Policy Officer shall be involved at each stage of the regulatory process to foster the development of effective, innovative, and least burdensome regulations and to further the principles set forth in this Executive order.

(3) In addition to adhering to its own rules and procedures and to the requirements of the Administrative Procedure Act, the Regulatory Flexibility Act, the Paperwork Reduction Act, and other applicable law, each agency shall develop its regulatory actions in a timely fashion and adhere to the following procedures with respect to a regulatory action:

(A) Each agency shall provide OIRA, at such times and in the manner specified by the Administrator of OIRA, with a list of its planned regulatory actions, indicating those which the agency believes are significant regulatory actions within the meaning of this Executive order. Absent a material change in the development of the planned regulatory action, those not designated as significant will not be subject to review under this section unless, within 10 working days of receipt

of the list, the Administrator of OIRA notifies the agency that OIRA has determined that a planned regulation is a significant regulatory action within the meaning of this Executive order. The Administrator of OIRA may waive review of any planned regulatory action designated by the agency as significant, in which case the agency need not further comply with subsection (a)(3)(B) or subsection (a)(3)(C) of this section.

(B) For each matter identified as, or determined by the Administrator of OIRA to be, a significant regulatory action, the issuing agency shall provide to OIRA:

- (i) The text of the draft regulatory action, together with a reasonably detailed description of the need for the regulatory action and an explanation of how the regulatory action will meet that need; and
- (ii) An assessment of the potential costs and benefits of the regulatory action, including an explanation of the manner in which the regulatory action is consistent with a statutory mandate and, to the extent permitted by law, promotes the President's priorities and avoids undue interference with State, local, and tribal governments in the exercise of their governmental functions.

(C) For those matters identified as, or determined by the Administrator of OIRA to be, a significant regulatory action within the scope of section 3(f)(1), the agency shall also provide to OIRA the following additional information developed as part of the agency's decision-making process (unless prohibited by law):

- (i) An assessment, including the underlying analysis, of benefits anticipated from the regulatory action (such as, but not limited to, the promotion of the efficient functioning of the economy and private markets, the enhancement of health and safety, the protection of the natural environment, and the elimination or reduction of discrimination or bias) together with, to the extent feasible, a quantification of those benefits;
- (ii) An assessment, including the underlying analysis, of costs anticipated from the regulatory action (such as, but not limited to, the direct cost both to the government in administering the regulation and to businesses and others in complying with the regulation, and any adverse effects on the efficient functioning of the economy, private markets (including productivity, employment, and competitiveness), health, safety, and the natural environment), together with, to the extent feasible, a quantification of those costs; and
- (iii) An assessment, including the underlying analysis, of costs and benefits of potentially effective and reasonably feasible alternatives to the planned regulation, identified by the agencies or the public (including improving the current regulation and reasonably viable nonregulatory actions), and an explanation why the planned regulatory action is preferable to the identified potential alternatives.

(D) In emergency situations or when an agency is obligated by law to act more quickly than normal review procedures allow, the agency shall notify OIRA as soon as possible and, to the extent practicable, comply with subsections (a)(3)(B) and (C) of this section. For those regulatory actions that are governed by a statutory or court-imposed deadline, the agency shall, to the extent practicable, schedule rule-making proceedings so as to permit sufficient time for OIRA to conduct its review, as set forth below in subsection (b)(2) through (4) of this section.

(E) After the regulatory action has been published in the **Federal Register** or otherwise issued to the public, the agency shall:

- (i) Make available to the public the information set forth in subsections (a)(3)(B) and (C);
- (ii) Identify for the public, in a complete, clear, and simple manner, the substantive changes between the draft submitted to OIRA for review and the action subsequently announced; and

(iii) Identify for the public those changes in the regulatory action that were made at the suggestion or recommendation of OIRA.

(F) All information provided to the public by the agency shall be in plain, understandable language.

(b) *OIRA Responsibilities.* The Administrator of OIRA shall provide meaningful guidance and oversight so that each agency's regulatory actions are consistent with applicable law, the President's priorities, and the principles set forth in this Executive order and do not conflict with the policies or actions of another agency. OIRA shall, to the extent permitted by law, adhere to the following guidelines:

(1) OIRA may review only actions identified by the agency or by OIRA as significant regulatory actions under subsection (a)(3)(A) of this section.

(2) OIRA shall waive review or notify the agency in writing of the results of its review within the following time periods:

(A) For any notices of inquiry, advance notices of proposed rulemaking, or other preliminary regulatory actions prior to a Notice of Proposed Rulemaking, within 10 working days after the date of submission of the draft action to OIRA;

(B) For all other regulatory actions, within 90 calendar days after the date of submission of the information set forth in subsections (a)(3)(B) and (C) of this section, unless OIRA has previously reviewed this information and, since that review, there has been no material change in the facts and circumstances upon which the regulatory action is based, in which case, OIRA shall complete its review within 45 days; and

(C) The review process may be extended (1) once by no more than 30 calendar days upon the written approval of the Director and (2) at the request of the agency head.

(3) For each regulatory action that the Administrator of OIRA returns to an agency for further consideration of some or all of its provisions, the Administrator of OIRA shall provide the issuing agency a written explanation for such return, setting forth the pertinent provision of this Executive order on which OIRA is relying. If the agency head disagrees with some or all of the bases for the return, the agency head shall so inform the Administrator of OIRA in writing.

(4) Except as otherwise provided by law or required by a Court, in order to ensure greater openness, accessibility, and accountability in the regulatory review process, OIRA shall be governed by the following disclosure requirements:

(A) Only the Administrator of OIRA (or a particular designee) shall receive oral communications initiated by persons not employed by the executive branch of the Federal Government regarding the substance of a regulatory action under OIRA review;

(B) All substantive communications between OIRA personnel and persons not employed by the executive branch of the Federal Government regarding a regulatory action under review shall be governed by the following guidelines: (i) A representative from the issuing agency shall be invited to any meeting between OIRA personnel and such person(s);

(ii) OIRA shall forward to the issuing agency, within 10 working days of receipt of the communication(s), all written communications, regardless of format, between OIRA personnel and any person who is not employed by the executive branch of the Federal Government, and the dates and names of individuals involved in all substantive oral communications (including meetings to which an agency representative was invited, but did not attend, and telephone conversations between OIRA personnel and any such persons); and

(iii) OIRA shall publicly disclose relevant information about such communication(s), as set forth below in subsection (b)(4)(C) of this section.

(C) OIRA shall maintain a publicly available log that shall contain, at a minimum, the following information pertinent to regulatory actions under review:

- (i) The status of all regulatory actions, including if (and if so, when and by whom) Vice Presidential and Presidential consideration was requested;
- (ii) A notation of all written communications forwarded to an issuing agency under subsection (b)(4)(B)(ii) of this section; and
- (iii) The dates and names of individuals involved in all substantive oral communications, including meetings and telephone conversations, between OIRA personnel and any person not employed by the executive branch of the Federal Government, and the subject matter discussed during such communications.

(D) After the regulatory action has been published in the **Federal Register** or otherwise issued to the public, or after the agency has announced its decision not to publish or issue the regulatory action, OIRA shall make available to the public all documents exchanged between OIRA and the agency during the review by OIRA under this section.

(5) All information provided to the public by OIRA shall be in plain, understandable language.

**Sec. 7. Resolution of Conflicts.** To the extent permitted by law, disagreements or conflicts between or among agency heads or between OMB and any agency that cannot be resolved by the Administrator of OIRA shall be resolved by the President, or by the Vice President acting at the request of the President, with the relevant agency head (and, as appropriate, other interested government officials). Vice Presidential and Presidential consideration of such disagreements may be initiated only by the Director, by the head of the issuing agency, or by the head of an agency that has a significant interest in the regulatory action at issue. Such review will not be undertaken at the request of other persons, entities, or their agents.

Resolution of such conflicts shall be informed by recommendations developed by the Vice President, after consultation with the Advisors (and other executive branch officials or personnel whose responsibilities to the President include the subject matter at issue). The development of these recommendations shall be concluded within 60 days after review has been requested.

During the Vice Presidential and Presidential review period, communications with any person not employed by the Federal Government relating to the substance of the regulatory action under review and directed to the Advisors or their staffs or to the staff of the Vice President shall be in writing and shall be forwarded by the recipient to the affected agency(ies) for inclusion in the public docket(s). When the communication is not in writing, such Advisors or staff members shall inform the outside party that the matter is under review and that any comments should be submitted in writing.

At the end of this review process, the President, or the Vice President acting at the request of the President, shall notify the affected agency and the Administrator of OIRA of the President's decision with respect to the matter.

**Sec. 8. Publication.** Except to the extent required by law, an agency shall not publish in the **Federal Register** or otherwise issue to the public any regulatory action that is subject to review under section 6 of this Executive order until (1) the Administrator of OIRA notifies the agency that OIRA has waived its review of the action or has completed its review without any requests for further consideration, or (2) the applicable time period in section 6(b)(2) expires without OIRA having notified the agency that it is returning the regulatory action for further consideration under section 6(b)(3), whichever occurs first. If the terms of the preceding sentence have not been satisfied and an agency wants to publish or otherwise issue a

regulatory action, the head of that agency may request Presidential consideration through the Vice President, as provided under section 7 of this order. Upon receipt of this request, the Vice President shall notify OIRA and the Advisors. The guidelines and time period set forth in section 7 shall apply to the publication of regulatory actions for which Presidential consideration has been sought.

**Sec. 9. Agency Authority.** Nothing in this order shall be construed as displacing the agencies' authority or responsibilities, as authorized by law.

**Sec. 10. Judicial Review.** Nothing in this Executive order shall affect any otherwise available judicial review of agency action. This Executive order is intended only to improve the internal management of the Federal Government and does not create any right or benefit, substantive or procedural, enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.

**Sec. 11. Revocations.** Executive Orders Nos. 12291 and 12498; all amendments to those Executive orders; all guidelines issued under those orders; and any exemptions from those orders heretofore granted for any category of rule are revoked.

A handwritten signature in black ink, reading "William Clinton". The signature is written in a cursive, flowing style with a large, prominent "W" and "C".

THE WHITE HOUSE,  
September 30, 1993.

[FR citation 58 FR 51735]



## CLEAN AIR AND SOLID WASTE DISPOSAL ACTS

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AUGUST 31, 1965.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

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Mr. HARRIS, from the Committee on Interstate and Foreign Commerce, submitted the following

### REPORT

[To accompany S. 306]

The Committee on Interstate and Foreign Commerce, to whom was referred the bill (S. 306) to amend the Clean Air Act to require standards for controlling the emission of pollutants from gasoline-powered or diesel-powered vehicles, to establish a Federal Air Pollution Control Laboratory, and for other purposes, having considered the same, report favorably thereon with amendments and recommend that the bill as amended do pass.

The amendments are as follows:

The amendment to the text strikes out all of the Senate bill and inserts in lieu thereof a substitute which appears in the reported bill in *italic type*.

The other amendment modifies the title of the bill to make it conform to the changes made by the amendment to the text.

#### PURPOSES OF LEGISLATION

The committee substitute would broaden the present authority of the Department of Health, Education, and Welfare in two areas affecting the public health and welfare: (1) air pollution, and (2) solid waste disposal.

The committee substitute would add a new title II to the Clean Air Act providing for control of air pollution from motor vehicles. This title would authorize the Secretary to prescribe by regulation as soon as practicable performance standards applicable to new motor vehicles and new motor vehicle engines with regard to air pollution which endangers the health or welfare of any person.

In addition, the committee substitute would amend the Clean Air Act so as to permit a foreign country in the case of air pollution emanating from the United States which endangers the health or welfare of persons in such foreign country to participate in conferences called by the Secretary of HEW and, for the purposes of such conferences and proceedings resulting therefrom, have all the rights of a State air pollution control agency. This privilege is conditioned, however, upon the foreign country granting reciprocal rights to the United States.

Finally, the committee substitute provides for the conduct and acceleration of research programs relating to means of controlling air pollution caused by motor vehicles in two respects, (1) hydrocarbon emissions resulting from the evaporation of gasoline, and (2) emissions of oxides of nitrogen and aldehydes. Additionally, such research is to be directed toward the development of improved low cost techniques designed to reduce emissions of oxides of sulfur produced by the combustion of sulfur-containing fuels.

The remainder of the committee substitute is related to a program of research and demonstrations to be carried on by the Secretary of HEW and the Secretary of the Interior with regard to solid waste disposal.

#### APPROPRIATIONS AUTHORIZED

Appropriations for these programs are authorized for the fiscal year ending June 30, 1966, and the 3 succeeding fiscal years in the following amounts:

##### *Appropriations authorized*

[In thousands]

	1966	1967	1968	1969
Motor vehicles pollution control—HEW -----	470	845	1, 195	1, 470
Solid waste:				
HEW -----	7, 000	14, 000	19, 200	20, 000
Interior -----	3, 000	6, 000	10, 800	12, 500

#### HEARINGS

Hearings were held on this and related bills on June 10, 11, 15, and 16, 1965. In addition to the reported bill S. 306, there have been referred to the committee the following additional related bills dealing with air pollution which were considered: H.R. 463 (Mr. Halpern, of New York); H.R. 2105 (Mr. Long of Maryland); H.R. 4001 (Mr. Fallon, of Maryland); H.R. 7065 (Mr. Lindsay, of New York); H.R. 7394 (Mr. McVicker, of Colorado); H.R. 7429 (Mr. Harris, of Arkansas); H.R. 8007 (Mr. Gibbons, of Florida); and H.R. 8398 (Mr. Green of Pennsylvania).

#### SULFUR DIOXIDE EMISSION STANDARDS FOR NEW FEDERAL CONSTRUCTION

Before discussing the purposes of the bill, the Committee desires to eliminate any possible misunderstanding concerning a proposed instruction being considered by the Bureau of the Budget, establishing standards for emissions of oxides of sulfur from new Federal installations. During the hearings there was considerable discussion

of these proposed standards. It was felt by some that the standards were unnecessarily high, and would, as a practical matter, eliminate the use of coal or imported residual fuel oil in new Federal installations. Fears were expressed that, once these standards were established for new Federal installations, it was possible that these standards might later be applied to existing Federal installations; and also be applied by States and local communities.

During the hearings, it appeared to many members of the committee that careful study should be given to the effect of the proposed new standards. The administration has come to the same conclusion, as is shown by the following letter from Under Secretary of Health, Education, and Welfare Wilbur J. Cohen to Hon. Oren Harris, chairman of the committee:

THE UNDER SECRETARY OF HEALTH,  
EDUCATION, AND WELFARE,  
*Washington, D.C., August 19, 1965.*

HON. OREN HARRIS,  
*Chairman, Committee on Interstate and Foreign Commerce,  
House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: This letter is in further response to our discussions concerning the proposed instructions for use of fuel in new Federal installations.

We are in complete agreement with you that the proposal to set sulfur dioxide emission limits for Federal installations is an important issue. We have been carefully reviewing the background and data which led to the first proposal, and now believe that additional studies must be made before a revised proposal is drafted. We have had extensive discussions with the fuel industry, and that industry is presently considering alternative proposals.

The Director of the Budget Bureau and I have considered this matter and we agree that sulfur dioxide standards for Federal installations should not be promulgated at this time, but that further consideration and study will be necessary.

The Bureau of the Budget will, therefore, proceed with water pollution control instructions under Budget Bureau Circular A-11, and will defer publication of air pollution instructions pending further development and consultations.

Sincerely yours,

WILBUR J. COHEN,  
*Under Secretary.*

#### NEED FOR LEGISLATION

One of the more serious problems facing our society today is the increasing contamination of our environment arising out of our increasingly industrialized and urbanized society. The trends of economic growth, technological progress, and rising urban populations have helped to create environmental contamination particularly in two areas (1) air pollution, especially emanating from motor vehicles, affecting thousands of communities in all parts of the country and imposing a serious threat to public health and national welfare, and (2) difficulties encountered in the efficient and economical disposal of solid waste.

## AIR POLLUTION

Air pollution is associated with the occurrence and worsening of such respiratory diseases as asthma, bronchitis, emphysema, and lung cancer, and is responsible for economic losses amounting to several billion dollars annually.

*Motor vehicle pollution*

The need for a nationwide attack on the motor vehicle pollution problem is beyond question. More than 85 million motor vehicles are now in use in the United States, and their number increases every year. Air sampling studies conducted over the last several years leave no doubt that automotive smog is occurring with increasing frequency and severity in urban areas throughout the United States.

Every automobile gives off, in addition to carbon dioxide, numerous unburned hydrocarbons, oxides of nitrogen, and traces of other substances. As these byproducts of the operation of automobiles become concentrated in the atmosphere, they are acted upon by sunlight, leading to the formation of ozone (a highly poisonous variety of oxygen), and automotive smog, which has serious adverse effects upon the health of persons exposed to it.

In a report of the Secretary of HEW to the Congress pursuant to the Clean Air Act submitted December 17, 1964 (S. Doc. No. 7, 89th Cong.), a number of health problems arising out of automotive air pollution were discussed. For example, in one study, 260 mice of a cancer resistant strain were exposed to the atmosphere of the Los Angeles freeways for a 2-year period. Autopsies revealed that 2 percent of these mice developed lung tumors, while 184 control animals developed none. Other studies concerning the effects of ozone on plants and animals showed that damage was done to plants by concentrations as low as 5 parts per 100 million, and that adverse effects on the health of guinea pigs occurred after their exposure to concentrations of ozone as low as 0.34 parts per million. Adverse effects on human beings occurred after 2-hour exposures of from 0.6 to 0.8 parts per million.

Oxides of nitrogen, even in small concentrations, showed adverse effects upon the health of laboratory animals. For example, when rats were exposed for 213 days to concentrations of nitrogen dioxide at 12.5 parts per million, about 10 percent of the rats died of pulmonary complications with strikingly voluminous lungs (emphysema). In addition, carbon monoxide which occurs in automobile exhausts tends to have serious adverse effects upon persons exposed to even low concentrations.

According to the report of the Secretary of HEW referred to above, in large metropolitan communities throughout the United States motor vehicles are responsible for a large percentage of the ingredients in the atmosphere which lead to photochemical smog; about 97 percent of the total olefins, 40 to 80 percent of the total hydrocarbons, and 14 to 67 percent of the oxides of nitrogen. It has been shown that the automobile discharges appreciable quantities of oxides of nitrogen from the exhaust pipe and discharges hydrocarbons from the exhaust pipe, the crankcase, the carburetor and the fuel tank. The problem of motor vehicle pollution is growing and is destined to continue growing unless steps are taken to bring it under effective control. The country's motor vehicle population is rising and is

becoming increasingly concentrated in urban areas, which already bear the major burden of the contemporary air pollution problem. Estimates are that total motor vehicle emissions into the atmosphere will increase by 75 percent in the next 10 years if effective controls are not applied and will more than double by 1985.

The technical knowledge and skills needed to achieve a significant reduction in motor vehicle pollution are now available. The automobile industry has indicated that equipment has been developed for reducing tailpipe emissions, which account for the major share of motor vehicle pollution, and that this equipment will be supplied on cars for distribution in California beginning with the 1966 model year, in compliance with the laws of that State. Furthermore, in testimony before the Subcommittee on Public Health and Welfare, representatives of the automobile manufacturers indicated that similar equipment could be supplied on all new cars manufactured in the United States by the 1968 model year, if such measures were mandatory under Federal law.

The committee is convinced that motor vehicle exhaust control standards on a national scale are necessary and would be of benefit to the entire country. Public concern about this problem is clearly increasing, as indicated, for example, by the steps taken or proposed in many States to deal with motor vehicle pollution. While the committee is cognizant of the basic rights and responsibilities of States for control of air pollution, it is apparent that the establishment of Federal standards applicable to motor vehicle emissions is preferable to regulation by individual States. The high rate of mobility of automobiles suggests that anything short of nationwide control would scarcely be adequate to cope with the motor vehicle pollution problem.

In addition, the objective of achieving fully effective control of motor vehicle pollution will not be accomplished overnight. This means, of course, that even after control systems are made mandatory for new vehicles, it will take several years to reach the point at which essentially all automobiles are equipped with such systems. Moreover, the techniques now available provide only a partial reduction in motor vehicle emissions. For the future, better methods of control will clearly be needed; the committee expects that the Department of Health, Education, and Welfare will accelerate its efforts in this area. It is clear, however, that if steps are not taken now to apply existing knowledge and skills, the motor vehicle pollution problem and the hazards it poses to public health and welfare will attain even larger dimensions.

#### *Prevention of new pollution problems*

In the context of the total effort to achieve cleaner air in American communities, efforts to prevent new air pollution problems from arising must be accorded equal priority with efforts to resolve existing problems. Economic growth and technological progress are constantly adding new sources of air pollution to the old. In many instances, preliminary investigations would undoubtedly serve to indicate ways in which to prevent new activities from adding to community air pollution, often at less cost than if action were postponed until a new problem is fullblown.

The adoption of the Clean Air Act has drawn attention to this aspect of the fight against air pollution. The Clean Air Act includes



authority for Federal action to secure abatement of existing interstate and certain intrastate problems. In the opinion of the committee, it would be equally desirable to provide means of investigating and finding practical solutions for potential new air pollution problems before they become a reality.

*International air pollution problems*

Extension of the existing Federal abatement authority to cases of air pollution affecting neighboring countries is a reasonable and desirable step. The boundaries that separate the United States from Canada and Mexico do not block the flow of pollution originating within our borders, nor do they shield persons living in those countries from the adverse effects of such pollution. As a member of the North American community, the United States cannot in good conscience decline to protect its neighbors from pollution which is beyond their legal control. Therefore the bill provides remedies for foreign countries adversely affected by air pollution emanating from the United States, if reciprocal rights are granted to the United States.

*Research on oxides of sulfur and motor vehicle pollution control*

The bill includes provisions relating to activities of the Department of Health, Education, and Welfare in research on various aspects of air pollution control. A pressing need exists for the development of improved, low-cost techniques for reducing sulfur oxide emissions from fuel combustion sources. The oxides of sulfur are one of the most widespread of all classes of air pollutants and they are among the most injurious to human health and the most damaging to property and vegetation. It is essential that control techniques be developed which will safeguard public health and welfare against the hazards of sulfur oxide pollution and which can be applied without disrupting present patterns of fuel production and consumption in the United States. The Clean Air Act directs the Department of Health, Education, and Welfare to conduct research on the development of low-cost techniques for extracting sulfur from fuels. This approach, as well as other potential solutions, need further exploration. The reported bill provides for acceleration of Federal research on this problem. Also included is provision for accelerated research on certain important aspects of motor vehicle pollution for which practical solutions do not now exist.

The bill also provides authority for establishment, staffing, and equipping of Federal air pollution control facilities to carry out the Secretary's functions. The need for such installations is underlined by the expanding responsibilities of the Department of Health, Education, and Welfare in the field of air pollution control and by the growing magnitude and complexity of the air pollution problem. In years to come, adequate protection of the national air resource will demand increasingly effective and sophisticated techniques for control of air pollution. It is imperative that the Congress take steps to provide facilities appropriate for the major research and development efforts that will be necessary to continue progress in understanding the nature and effects of air pollution and to develop new and improved control methods.

## SOLID WASTE DISPOSAL

Title II of the bill deals with the subject of the disposal of solid wastes. This growing public health problem has increasingly been brought to the committee's attention in recent years. This year the following bills have been introduced and are pending before the committee dealing with this subject, in addition to the reported bill: H.R. 890 (Mr. Roosevelt), H.R. 4798 (Mr. Roybal), H.R. 4854 (Mr. Kluczynski), H.R. 4878 (Mr. Hawkins), H.R. 4940 (Mr. Celler), H.R. 5182 (Mr. Van Deerlin), H.R. 5373 (Mr. Corman), H.R. 5560 (Mr. Brown of California), H.R. 5568 (Mr. Dingell), and H.R. 8248 (Mr. Matthews).

Testimony favorable to this legislation was submitted to the committee from the National League of Cities, the National Association of Sanitarians, the Conference of State Sanitary Engineers, the American Public Works Association, the American Medical Association, the Massachusetts Department of Public Health, the Arizona State Department of Health, the Nevada State Department of Health, the Washington State Department of Health, the cities of New York, Oakland, Calif., Boise, Idaho, East Orange, N.J., Milwaukee, Wis., Seattle, Wash., Philadelphia, Pa., and the Los Angeles County Board of Supervisors, as well as the New Jersey Division of Environmental Health, the Department of Agricultural Engineering of the University of California, the Department of Civil Engineering of the University of Kansas, and the Department of Civil Engineering of West Virginia University.

Solid waste collection and disposal activities create one of the most serious and most neglected aspects of environmental contamination affecting public health and welfare. Solid wastes include a great variety of things that individuals, manufacturers, commercial establishments, and communities discard as no longer usable, such as garbage, rubbish, ashes, street refuse, demolition debris, construction refuse, abandoned automobile hulks, old refrigerators and furniture, and the wastes from slaughterhouses, canneries, manufacturing plants, and hospitals. The dimensions of the problem are staggering. Available data indicate that current production nationally of solid wastes in urban communities amounts to a half billion pounds daily, and it has been estimated that the total will rise to approximately three times that amount by 1980.

The efforts now being made to deal with this problem are clearly inadequate. Less than half of the cities and towns in the United States with populations of more than 2,500 have programs for sanitary disposal of solid wastes. All too often, refuse is disposed of by methods that create unhealthful, insanitary, and unsightly environmental conditions. Such practices contribute to air, water, and soil pollution and create breeding places for disease-carrying insects and rodents. Accumulations of litter, refuse, and junk cause fire hazards, contribute to accidents and destroy the beauty of cities and the countryside.

In the opinion of the committee, immediate action must be taken to initiate a national program directed toward finding and applying new solutions to the waste disposal problem. This is a challenge which State and local governments cannot meet without assistance from the Federal Government. The handling and disposal of solid wastes are costly operations that strain the resources of State and

With regard to other aspects of the bills, we would defer to other agencies more directly concerned.

The Bureau of the Budget advises that there is no objection to the submission of this report from the standpoint of the administration's program.

Sincerely,

W. WILLARD WIRTZ,  
*Secretary of Labor.*

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FEDERAL POWER COMMISSION,  
*Washington, D.C., June 10, 1965.*

HON. OREN HARRIS,  
*Chairman, Committee on Interstate and Foreign Commerce,  
House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: S. 306, upon which your letter of May 24, 1965, requests us to make a report, would amend the Clean Air Act to require standards for controlling the emission of pollutants from gasoline-powered or diesel-powered vehicles, to authorize construction of a Federal Air Pollution Control Laboratory to contribute to the national air pollution research effort, and to enact the Solid Waste Disposal Act for the purpose of encouraging research and providing technical and financial assistance to solid waste disposal programs.

The Commission appreciates the seriousness of air and water pollution problems. Our report on H.R. 4001, 89th Congress, which is also before your committee, suggests specific areas for intensified research and discusses generally this Commission's interest in these problems. Please treat our report on H.R. 4001, which was transmitted to your committee June 4, as our report on S. 306.

Sincerely,

DAVID S. BLACK, *Acting Chairman.*

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#### FEDERAL POWER COMMISSION REPORT ON H.R. 4001, 89TH CONGRESS

A bill to amend the Clean Air Act to require standards for controlling the emission of pollutants from gasoline-powered or diesel-powered vehicles, to establish a Federal Air Pollution Control Laboratory, and for other purposes

Public Law 88-206, known as the Clean Air Act, approved December 17, 1963 (77 Stat. 392), augmented and strengthened the Federal air pollution program by giving the Secretary of Health, Education, and Welfare specific abatement powers and establishing a program of financial assistance to State and local agencies for air pollution control work. Other provisions of the act directed the Secretary to develop and promulgate criteria of air quality and air pollution emission limitations and to conduct studies and investigations leading to the development of practical, low-cost methods of removing sulfur from fuels in order to reduce the amount of atmospheric sulfurous pollution caused by the burning of sulfur containing coal and oil.

Last year extensive hearings were held by the Senate Public Works Special Subcommittee on Air and Water Pollution with a view to formulating appropriate legislation to further implement the provisions of the newly enacted Clean Air Act. The amendments to sec-

tion 3 of the Clean Air Act proposed in this bill are intended to implement the recommendations contained in the subcommittee report, "Steps Toward Clean Air," issued in October 1964. (See vol. 111, Congressional Record, Jan. 7, 1965, No. 4, pp. 283-285.)

Briefly, these amendments would authorize the Secretary of Health, Education and Welfare to establish a Federal Air Pollution Control Laboratory within the Department "to conduct such phases of the national research and development program for the prevention and control of air pollution as he deems appropriate." In addition, it authorizes the appointment by the Secretary of a technical committee composed of representatives of the Departments of Interior and Health, Education, and Welfare, the coal and petroleum industries, the electric power industry, and the Federal Power Commission to encourage "the development of improved low-cost techniques designed to reduce emissions of oxides of sulfur produced by the combustion of sulfur-containing fuels." The committee would evaluate progress in the development of pollution control techniques and recommend additional research programs. A major purpose of the bill is to encourage research relating to the direct control of hydrocarbon emissions resulting from the operation of automotive vehicles.

The Commission strongly supports the basic purposes and objectives of the bill insofar as it seeks to solve the sulfurous air pollution problem through research, and we believe that continued Federal efforts should facilitate and encourage the execution and coordination of research programs in that field. At the same time, however, we believe that consideration should be given to broadening the scope of the contemplated research programs along the lines discussed below to embrace a broader program for combating the overall problem of air pollution.

The focus of this Commission's interest, as far as air pollution is concerned, is of course primarily with respect to the pollution resulting from the operation of steam-electric generating plants. The Commission has no direct control under the Federal Power Act over the location of such plants, the nature of the fuel they burn, or the installations incorporated into such plants to minimize pollution caused by waste from combustion. Nevertheless, the Commission is, we believe, playing an important indirect role to improve this situation through the exercise of the responsibility contained in section 202(a) of the Federal Power Act directing the Commission to promote interconnection and coordination of electric utility systems for "the purpose of assuring an abundant supply of electric energy throughout the United States with the greatest possible economy and with regard to the proper utilization and conservation of natural resources."

Pursuant to this authority the Commission's recent National Power Survey Report, issued December 12, 1964, presents guidelines for development of the Nation's electric power industry, designed to encourage full regional and countrywide coordination of the Nation's 3,600 electric utilities and to help achieve savings in the cost of generation and transmission of electricity. The power survey emphasizes the importance of lowering power costs through fully coordinated networks, including cooperative planning and construction of larger and more efficient generating plants near fuel sources and outside metropolitan centers to feed electricity into extra-high-voltage regional grids.

The survey, which was conducted in cooperation with advisory committees drawn from all segments of the electric power industry, gives prominent recognition to the problems of air and water pollution and their significance in regard to the design, location, and operation of larger thermal electric plants. The report points up the possibilities for combating air pollution through greater interconnection of utility systems and emphasizes in particular the importance of careful plant site selection in minimizing the adverse economic and social effects of pollution. It also calls for more research to identify pollution damage limits and more information on methods and equipment to bring costs down. The survey reaches the significant conclusion that despite the effect on costs, the Nation's capacity to produce needed electrical energy will not be impaired by an adequate program of pollution control. See chapter 9, National Power Survey.

The electric power industry has been much concerned with the problem of air pollution control, and most present installations are equipped with high stacks and with devices that limit plant emissions of particulate matter. The most severe air pollution problems involving electric generating plants normally occur at stations within urban areas. If the industry pools its resources along the lines advocated in the National Power Survey, and it has done this in some instances already, it is reasonable to anticipate that the large generating plants of the future will be designed and located to serve overall network loads, and utilities serving metropolitan areas will be locating much of their new capacity beyond the metropolitan zones. Even absent an air pollution problem, utilities serving large metropolitan areas will often be justified in constructing their large steamplants many miles from these congested areas. Moreover, new plants will be more efficient than the older ones now in operation and, since they will operate continuously to serve the system baseloads, air pollution will be minimized. Thus, as a matter of economy, the existing plants, many of which are located in urban areas, will tend to be retired much earlier.

We do not wish to convey the impression that the construction of mine-mouth steam-electric generating stations will solve the air pollution problems, because there will be problems attendant to these installations. Pollution abatement facilities such as precombustion treatment of fuels, high stacks, dust collectors, and treatment of flue gases will be required, but the acceptable level of tolerance will be such that the control facilities can be provided at a more reasonable cost. While this is a proper concern of the industry, presently known processes for precombustion treatment of fuels are expensive and the matter may appropriately concern the projected Federal air pollution control research effort.

We also suggest that the committee, in addition to encouraging research with respect to atmospheric pollution arising from sulfur-containing fuels, may also want to encourage research with respect to controlling combination caused by the emission of nitrogen oxides and particulates from the combustion of various fuels.

Without implying any limit on the potential research areas, it is suggested that revolutionary advancements are possible in two areas which would seem to merit appropriate attention as a part of the Federal air pollution control research effort:

*Rechargeable batteries.*—The development of a rechargeable battery for motor vehicles could overcome a major source of air pollution in



our cities; yet, little real improvement in large power storage battery construction has been made in this century. Such development initially would permit converting the multitudes of motor vehicles used for short haul, stop-and-start activities in urban areas to battery-powered operation. Even this limited application would achieve major benefits in pollution abatement and noise control. The energy conversions in modern electric powerplants are far more efficient than those in internal combustion auto engines, so that the total pollutant potential would decrease, and the combustion refuse would be concentrated where it could be better controlled. The batteries would normally be charged during the night, when power system loads are at a minimum, thus further improving the efficiencies of the electric power system operations.

While the development of such batteries is likely to be difficult and expensive, it does not appear to be impossible. In fact, several industrial manufacturers are known to be working on the problem. The Edison Electric Institute is also supporting some research. However, the present scale of effort is not likely to result in rapid progress. Substantial Government support would not guarantee success, but the potential benefits are so great that it seems that serious consideration of a much enlarged research and development program would be warranted.

*Electrified mass transportation.*—Along the same lines, electrified rapid transit facilities would help to relieve air pollution as well as traffic congestion.

The Federal Power Commission is aware of the seriousness of air pollution problems, and recognizes that the electric power industry has major responsibilities in helping to solve these problems. The Commission stands ready to continue to cooperate with the Department of Health, Education, and Welfare and other interested groups and agencies in their continuing efforts to meet this major challenge of our industrialized society through strengthened research.

FEDERAL POWER COMMISSION,  
JOSEPH C. SWIDLER, *Chairman*.

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GENERAL SERVICES ADMINISTRATION,  
*Washington, D.C., July 9, 1965.*

HON. OREN HARRIS,  
*Chairman, Committee on Interstate and Foreign Commerce,  
House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: Your letter of April 9, 1965, requested the views of the General Services Administration on H.R. 7065, 89th Congress, a bill to amend the Clean Air Act to require national standards for reducing or eliminating the emission of air pollutants from gasoline-powered vehicles, to authorize grants to municipalities and air pollution control agencies for the acquisition, construction, or installation of devices or facilities designed to reduce or eliminate air pollution resulting from the disposal of solid wastes, to direct the Surgeon General to conduct a study of and report to Congress on the effect of air pollution from all sources on human health (particularly lung cancer), and for other purposes; and to amend the Internal Revenue Code of 1954 to permit deduction of expenditures and increased

investment credit for the acquisition, construction, or installation of water and air pollution control devices.

The purposes of the bill are stated in the title.

The President in his message to the Congress of February 8, 1965, on the subject of "Natural Beauty" stated, among other things, that the Administrator of General Services has already taken steps to assure that motor vehicles purchased by the Federal Government meet minimum standards of exhaust quality. Since that time the administration has indicated the recommendation of legislation along the lines of S. 306, which is applicable to all liquid fueled vehicles. In this connection, we are pleased to advise that GSA has developed a regulation, pursuant to Public Law 88-515, approved August 30, 1964 (78 Stat. 696), and section 206(a)(4) of the Federal Property and Administrative Services Act of 1949, as amended, which will establish a Federal standard covering motor vehicle exhaust emission on vehicles purchased by the Federal Government.

This standard was developed in full collaboration with industry and concerned Government agencies. It was published in the Federal Register on January 26, 1965 (30 F.R. 801), for comment by interested parties. The regulation is based on the "California Test Procedure and Criteria in Motor Vehicle Exhaust Emission Control" which is the only criteria known at this time. Further development of standards for exhaust emission control will probably be based on limits established by the Department of Health, Education, and Welfare.

The GSA standard will be effective September 28, 1966, for the purchase by the Federal Government of the 1967 model series of motor vehicles in accordance with the provisions of section 4 of the act of August 30, 1964.

Specifications developed by GSA for the purchase of automotive vehicles to be used by the Federal Government already have included a requirement that the engines be provided with positive crankcase ventilation systems. These systems route most crankcase emissions back into the combustion chambers of the engines, thereby substantially reducing the pollutants released by the crankcase. Further developments in this area will also probably be based on limits or requirements established by the Department of Health, Education, and Welfare.

We believe that GSA's program is consistent with the objectives of section 1 of H.R. 7065 as augmented by section 3 of the bill which prescribes specific limitations on allowable emissions of pollutants for gasoline-powered vehicles. As a practical matter, however, we believe that standards should be established administratively rather than by statute in order to permit flexibility to conform to future development of methods and devices for the control or elimination of air pollutants by motor vehicles.

Further, in view of the foregoing, we see no purpose to be accomplished by the enactment of the proposed section 6(e) of the Clean Air Act set forth on lines 11 through 20, page 8 of the bill, which would prohibit the purchase by the Government of gasoline-powered vehicles not equipped with devices to reduce or eliminate the discharge of air pollutants from such vehicles. In the event the committee favorably considers these provisions, however, we recommend that at line 12, page 8, the date "July 1, 1965," be amended to read "July 1, 1966."

Section 1 of the bill would also add a section 3(e) to the Clean Air Act to authorize the Secretary of Health, Education, and Welfare to appoint a technical committee consisting of representatives from HEW, the Bureau of Mines of the Department of the Interior, the Federal Power Commission, and the coal, petroleum, and electric power industries, for the purpose of encouraging the development of improved low-cost techniques designed to reduce emissions of oxides of sulfur produced by the combustion of sulfur-containing fuels. While GSA is in accord with such purpose, we question the desirability of the proliferation of technical committees established by statute which could produce undesirable rigidity in program approaches and result in the inefficient use of scarce technical personnel. However, if it is considered that the enactment of the proposed section 3(e) of the Clean Air Act is desirable and would affect GSA with respect to responsibilities concerning specifications, standards, and procurement of automotive equipment for use by the Federal Government, it is suggested that consideration be given to include a representative of GSA on the technical committee.

Although GSA would not be opposed to the enactment of H.R. 7065 if amended in accordance with the foregoing, we would prefer the enactment of S. 306 a similar bill which is also under consideration by your committee, and which would obviate the foregoing comments.

We do not anticipate that the enactment of the proposed legislation would affect the budgetary requirements of GSA.

The Bureau of the Budget has advised that, from the standpoint of the administration's program, there is no objection to the submission of this report to your committee.

Sincerely yours,

LAWSON B. KNOTT, Jr.,  
*Administrator.*

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION,  
OFFICE OF THE ADMINISTRATOR,  
Washington, D.C., June 29, 1965.

HON. OREN HARRIS,  
*Chairman, Committee on Interstate and Foreign Commerce,  
House of Representatives,  
Washington, D.C.*

DEAR MR. CHAIRMAN: This replies to your request for a report by the National Aeronautics and Space Administration on two bills, H.R. 7065 (Mr. Lindsay) and H.R. 7394 (Mr. McVicker), and responds to the committee notice of public hearings which have been held on proposed amendments to the Clean Air Act.

In effect there are now six bills on amending the Clean Air Act before NASA for comment. In addition to H.R. 7065 and H.R. 7394, the notice of hearings identified H.R. 7429 (Mr. Harris), H.R. 463 (Mr. Halpern), H.R. 4001 (Mr. Fallon), and S. 306.

Under the existing Clean Air Act, as amended (77 Stat. 392, 42 U.S.C. 1857), the Secretary of Health, Education, and Welfare is given broad authority to prevent and control air pollution, including the authority to encourage cooperative activities by State and local governments and by all Federal departments and agencies having functions relating to the prevention and control of air pollution; to establish a national research and development program; to make

grants for the support of air pollution control programs; to provide for the abatement of air pollution by voluntary action or by court order; to encourage continued efforts by the automotive and fuel industries to develop devices and fuels to prevent pollution emanating from the exhaust of automotive vehicles and to report to Congress thereon; to establish classes of potential pollution sources for Federal installations and license their use; and to prescribe such regulations as are necessary to carry out his functions under the act.

The six bills, in general, would amend the Clean Air Act and are designed to accelerate the elimination or reduction of air pollution. The Secretary of HEW would be directed to accelerate research programs relating to gasoline-powered vehicles, diesel-powered vehicles, and jet aircraft and missiles and fuels used to power jet aircraft and missiles with a view toward reducing or eliminating pollutants emitted from those sources. With respect to jet aircraft and missiles and their fuels, the Secretary would appoint a technical committee to carry out the research composed of representatives from the Department of Health, Education, and Welfare, Department of Defense, Federal Aviation Agency, National Aeronautics and Space Administration, the Atomic Energy Commission, the Department of Commerce, the jet aircraft and missile industries, and affected fuel manufacturers. A Federal Air Pollution Control Laboratory would be established within the Department of Health, Education, and Welfare to conduct research and development for the prevention and control of air pollution.

The current program for grants in support of air pollution control programs would be amended to authorize the Secretary to make grants to municipalities and air pollution control agencies for the acquisition, construction, or installation of devices or facilities designed to reduce or eliminate air pollution resulting from the disposal of solid wastes or from the generation of heat or power.

Section 6 (automotive vehicle exhaust and fuel pollution) of the Clean Air Act would be amended to include "standards for the allowable emissions of pollutants from gasoline-powered vehicles" and to include a requirement that within 1 year after enactment all new gasoline-powered vehicles be equipped with systems limiting air pollution within specified percentages. Provision would be made that no future appropriation shall be available for the purchase of any new gasoline-powered vehicle by the executive, legislative, or judicial branches of the Government unless such vehicle is equipped with a device to reduce or eliminate air pollution in accordance with the standards prescribed by the Secretary.

Section 7 (control of air pollution from Federal facilities) of the Clean Air Act would be amended to provide that the Secretary may establish classes of potential pollution sources for any Federal agency having jurisdiction over any building, installation, or other property, and to enter any such facility at reasonable times for the purpose of inspecting and investigating practices of discharging pollutants. Appropriations would be authorized for the procurement, installation, and operation of devices or other means to prevent or control air pollution from Federal facilities for which the Secretary has approved the plans and specifications. Some of the bills would provide that appropriations for those purposes be made to the Department of Health, Education, and Welfare and would be made available to the agency concerned pursuant to plans approved by the Secretary while

# CLEAN AIR ACT AMENDMENTS OF 1990

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## R E P O R T

OF THE

### COMMITTEE ON ENERGY AND COMMERCE U.S. HOUSE OF REPRESENTATIVES

ON

H.R. 3030

together with

ADDITIONAL, SUPPLEMENTAL, AND  
DISSENTING VIEWS



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in vehicle miles travelled (VMT) because the Act's emission standards are set on the basis of grams per mile. The more miles the public travels in urban, rural and open highway areas, the more grams in total are emitted nationwide.

VMT growth is currently expected to average about 2.5 percent each year, although some estimates (such as from the Highway Users Federation) predict VMT growth to average 6 percent each year, except in the most congested urban areas with the most ozone nonattainment problems.

NO<sub>x</sub> and CO exhaust will follow a similar pattern without new controls, but with fewer emission reductions. By the late 1990s, for example, NO<sub>x</sub> emissions from highway vehicles should drop about 15 percent and then turn upwards. At VMT growth of 2.5 percent NO<sub>x</sub> emissions would exceed today's levels shortly after 2005.

### *The history of mobile source controls*

The 1970 Clean Air Act forced technological innovation on the foreign and domestic automobile industry. It required EPA to set tailpipe standards that reduced hydrocarbon (HC), nitrogen oxide, and CO pollution in automobile exhaust by a least 90 percent from 1970 baseline which includes some controls on HC and CO emissions. No technology existed at the time to meet the 90 percent standards. EPA by rule set and exhaust standard of 0.41 grams per mile (gpm) for HC emissions. It set a standard of 0.4 gpm for NO<sub>x</sub>, which was subsequently relaxed in the 1977 Clean Air Act Amendments to 1.0 gpm. And it set a standard of 3.4 gpm for CO. The theory was that the 1970 standards would force the development of brand-new technology.

The theory worked. The industry responded by developing the "catalytic converter," which fits on the end of the tailpipe and converts HC, NO<sub>x</sub>, and CO into carbon dioxide, water vapor, and nitrogen gas. The original standards, as amended in 1977, remain in effect today. However, these specific standards and technology have, not as yet, achieved the 90 percent of 1970 in all cases and the number of recalls annually by foreign and domestic companies indicates some of the difficulty in meeting even current standards in use. On the other hand, there is testimony that the standards can easily be met.

The Act gave EPA a rulemaking mandate to set specific numerical standards for trucks and buses. The most recent truck and bus standards were promulgated in 1985. They vary according to the weight of the vehicle and are phased in for some vehicle classes as provided in the Act.

The Federal standards must be met at "certification," when the vehicle comes off the assembly line, and "in-use" for the "useful life" of the vehicle. The current Act defines the useful life of a car as five years or 50,000 miles of use, whichever comes first. EPA has defined useful life as 11 years or 120,000 miles in the case of light-duty trucks and as even longer (up to 285,000 miles) in the case of some heavy-duty trucks.

As a practical matter, compliance with the standard in use is controlling. In order to meet the applicable standards in-use and avoid recall, new vehicles regularly certify at levels well below such standards.

In general, EPA has not regulated the emission of toxic substances by motor vehicles or fuels directly, but monitors the emissions and many of the toxics are reduced principally as a direct consequence of the HC standard. For instance, benzene, butadiene, and formaldehyde are types of hydrocarbons. As a result, they are controlled, at least in part, by tailpipe standards limiting exhaust emissions of hydrocarbons.

In some instances, however, controls on criteria pollutants (HC, CO, NO<sub>2</sub>, TSP, PM-10) have aggravated problems of toxic emissions. For instance, the rules phasing down the lead content in gasoline resulted in increases in other ingredients, such as benzene, to achieve the same octane performance level.

### *Strategies for controlling emissions from mobile sources*

There is no single approach that can eliminate the pollution from the broad range of mobile sources. Rather, achieving significant reductions in VOC, NO<sub>x</sub>, CO, and toxic emissions requires using a host of measures, including tighter tailpipe standards, enhanced I/M programs, increasing anti-tampering measures, controls on fuel volatility, encouragement of oxygenated fuels, controls on evaporative emissions and running losses, and controls of non-road vehicles and engines.

In the long run, widespread use of clean-burning alternative fuels will be necessary to clean up the most polluted cities.

Included in H.R. 3030, as proposed by the President, was an innovative, new alternative fuels and fuel source program applicable to nine urban areas with the most serious ozone problems.

When this program was first proposed by the President many in industry expressed either opposition or grave concern about its scope and implications. Some were concerned that there was too much emphasis on methanol to the detriment of other fuels. Others were concerned about the mandates to sell vehicles and still others were concerned about the costs and problems related to establishing a new infrastructure.

The National Clean Air Coalition in a July 12, 1989 memorandum to all Members of Congress asked if there is not "a better way" of encouraging development of a clean car than "requiring use of alternative fuels." They said:

The second phase of the President's motor vehicle control program relies solely on "unproven 'alternative fuel' technologies (thatching, methanol, natural gas). Alternative fuel requirements will play a role. They are not a substitute for cleaner gasoline powered cars. Questions for fuel supply, handling, safety, costs, and overall environmental impact suggests that the more prudent approach would be to commit the Nation to a clean car without dictating the choice of control.

At that time, the Coalition indicated a support for a second round of tighter tailpipe standards in later 1990's rather than this alternative fuels program, although they did not close the door to such a program.

Later in January 1990, the Coalition restated their views as follows:

We support adding a program to require, beginning in the mid-90's, the production and sale in our worst polluted areas of a substantial number of vehicles whose total hydrocarbon pollution (exhaust, evaporative, and refueling) is significantly less than gasoline vehicles of the same model year. To produce the environmental benefits that our dirtiest cities need, both the performance standards and the required number of clean fuel vehicles should be designed to accomplish major additional pollution reductions.

In our view the reductions promised in the President's clean fuels proposal should serve as the minimum cleanup objective: reductions equal to those produced by requiring 30% of new car sales to meet standards for total ozone-forming hydrocarbons that are 80% cleaner than total emissions from gasoline cars. \* \* \* Clean fuel vehicles should also achieve comparable reductions in toxic emissions.

\* \* \* \* \*

To work, an alternate fuel program must impose an obligation on automakers and fuel suppliers to produce and sell the clean fuels and vehicles in the required quantities. A program (such as the "Hall-Fields amendment" on the House side) that fails to do this is a sham.

Now, industry has argued against this, claiming it should not be held responsible for consumers' choices. [We] disagree. Who more than designers and suppliers of a product should take the responsibility for making and pricing it so that consumers will want to buy?

The fuel and auto companies are the ones who will make the engineering, design, marketing and pricing decisions for their products. These decisions will determine the attractiveness of the fuels and vehicles to consumers. If these companies are not held responsible for insuring sales then no one will be responsible. The result will be a program that will fail; paper compliance by industry, producing "example" vehicles that are not bought in significant numbers because the manufacturers have not tried to make the products desirable.

As reported, H.R. 3030 includes that program (along with the opportunity for a second round of tighter tailpipe standards) with expansions to give specific emphasis to governmental and private alternative fuel fleets. The Committee emphasizes that both as proposed by the President and as amended by the Committee, the new program aims to reduce the mobile source/fuels contribution to the VOC inventory in ozone nonattainment areas.

The Committee intends the clean fuel requirements to contribute toward attainment of the ozone air quality standard in these nine most serious nonattainment areas by reducing emissions of VOCs through the use of clean alternative fuels and clean fuel vehicles. The Committee recognizes that further tightening of traditional exhaust emissions standards alone is not like to result in significant further emissions reductions and that clean alternative fuels have

the potential to achieve further reductions in VOC emissions to assist in attainment of the ozone standard.

The program complements the Sharp-Rockefeller Act of 1988 which provided fuel economy credits for manufacturers to encourage development and production of alternative fuels and other fuel source vehicles. Indications are that motor vehicle makers and the fuels industry are moving to accept this challenge. The bill provides that encouragement, while ensuring that no one fuel is given a preferred position or advantage.

The Committee wants to encourage a broad range of vehicles using electricity, improved gasoline, natural gas, alcohols, clean diesel fuel, propane, and other fuels. At the same time, the Committee recognizes the considerable hurdles and problems this program will face, including consumer acceptance. In addressing this issue in 1987 in regard to the Sharp/Rockefeller legislation, the Committee said:

The Committee believes the commercialization and widespread application and use in the United States of these proven technologies can be achieved by breaking out of a circular problem. The motor vehicle manufacturers will produce and commercially market alternative fuels vehicles on a large scale only when all performance and other problems of such vehicles are solved and they are satisfied that consumers will buy them; consumers will buy them only when they are satisfied that such vehicles perform as well as conventional fueled vehicles and are durable and when the fuel is readily available; fuel companies will only offer to make the alternative fuel available if there are new vehicles being manufactured in sufficient quantities throughout the Nation to create a demand for such fuel. This quandary is usually referred to as the "chicken and egg" problem.

This bill begins to solve the dilemma through a program that combines Federal purchase power, Federal financing for Mass Transportation, and the Federal Corporate Average Fuel Economy (CAFE) program in ways that should help to instill consumer confidence, gain valuable experience, encourage the development, production and sale of vehicles capable of operating on both conventional fuels (gasoline and diesel) and alternative fuels (alcohols and natural gas), and encourage the development of alternative fuel retail pumps for consumer use. In short, our objective is to help overcome economic and other risks associated with the application of these fuels in order to provide widespread competition in the marketplace and thus improve energy security and air quality.

H.R. 3030 gives greater emphasis to the need for this program for air quality reasons. But, in the two short years since enactment of the Sharp/Rockefeller law the "chicken and the egg" problem is still formidable. Hopefully, this bill and that law together can provide the solutions. That is H.R. 3030's objective and goal.

It is important to emphasize that the bill looks at total vehicle emissions and seeks to set performance requirements aimed at reducing VOC emissions from whatever the source.

Such measures are incorporated into the provisions of Title II of the bill, as discussed below.

#### SECTION-BY-SECTION ANALYSIS

##### *Section 201. Clean fuel requirements*

This section establishes several programs for increasing the use of vehicles operated on "clean alternative fuels."

*Definitions.*—Subsection (a) of section 201 amends section 216 to define the key terms used in the new section 212.

The term "clean alternative fuel" is defined as any fuel that can be used in a vehicle that complies with the standards applicable to clean-fuel vehicles when using such fuel. Natural gas, liquefied petroleum gas, alcohol fuels such as ethanol and methanol, reformulated gasoline, and hydrogen are specifically mentioned as fuels that should be considered clean alternative fuels, if they meet the applicable performance standards for VOCs and emissions reductions for air toxics to qualify under the program. Other power sources, like electricity are considered alternative fuel power sources as well. However, under the approach in the bill, reformulated diesel fuel meeting EPA standards, particularly diesel fuel with low sulfur and toughened particular standards for urban buses, which are important to many cities and their public transit authorities, or gasoline mixed with alcohols, would also be considered clean alternative fuels when they are used in vehicles that meet the performance standards and requirements for clean fuel vehicles when using such fuel.

It is not the Committee's intention to prejudge the emissions reduction potential of any fuel. It is intended that this be a fuel neutral program.

Although some believe that EPA has a strong preference for methanol, the Committee intends no such preference for that or any other fuel. All should compete.

The term "clean-fuel vehicle" is given a similar definition. A clean-fuel vehicle is defined as any vehicle that meets the performance standards for such vehicles in new section 212.

The term "ozone-forming volatile organic compounds" refers to all fuel related hydrocarbons emitted from a vehicle except methane. In determining the level of ozone-forming VOCs emitted from a vehicle, the Administrator is required to count exhaust, evaporative, refueling, and running loss emissions. Provision is also made for recognizing the reduction in refueling emissions as a result of Stage II or onboard controls or both. The Administrator should also adjust the level of such emissions to reflect the reactivity of the emissions. Vehicles with emissions that have less potential to form ozone than conventional gasoline vehicles should have their aggregate emission level discounted to reflect the lesser contribution to ozone formation.

Subsection (a) also defines the terms "covered fleet" and "covered fleet vehicle."



A "covered fleet" is any fleet of ten or more vehicles under common ownership. To prevent fleet operators from avoiding clean-fuel requirements by spinning off subsidiary corporations (each operating fewer than ten vehicles), the bill provides that all motor vehicles (as defined in section 216 of the Clean air Act) owned by someone who is under the control of another person shall be considered to be owned by the controlling person.

A "covered fleet vehicle" is any vehicle in a covered fleet which is centrally fueled or maintained and capable of being centrally fueled and maintained. Because the definition of covered fleet vehicles applies to vehicles that are capable of being centrally fueled and maintained, a fleet operator cannot avoid clean fuel requirements by the simple expedient of dispersing refueling or maintenance operations. The EPA Administrator, in determining if a fleet is subject to the covered fleet vehicle definition, will take into account the vehicle range of the fleet vehicles, their operational requirements, specialty uses, costs, safety, and other relevant factors.

Vehicles leased or rented to the public, vehicles held by dealers for sale, including demonstration vehicles, emergency and law enforcement vehicles (i.e., ambulances, fire engines, and police vehicles) and motor vehicle manufacturer's product evaluations or test vehicles are not included in the definition of covered fleets and hence are excluded from clean fuel requirements.

When the bill was reported, we were aware of fleet operators concerns, such as expressed to us by one fleet operator which acquires vehicles for fleets. That firm said that most of their clients' vehicles are used by sales/service representatives "who do not come to their company's office on a regularly scheduled basis and certainly not on a daily basis." They are concerned about uncertainty and about the possibility that many fleet operators might "conclude that they will terminate their employer provided car program" if, for example, there were provisions that contributed to that uncertainty. They added:

Under such a circumstance, the alternative of employer-provided cars under a reimbursement program becomes viable due to the potential costs and impossible demands of a central fueling requirement.

We believe that uncertainty has been removed and that the program will meet the reasonable and legitimate concerns of the fleets.

*New section 212.*—Subsections (b) of section 201 deletes existing section 212 and inserts a new section 212, establishing several new clean-fuel programs.

This section replaces the former section 212, which had established a low-emission vehicle board to promote the development of low-emission vehicles. The board was abolished in 1980 by Public Law 96-208, 94 Stat. 98.

*Urban buses.*—New subsection 212(a) requires the Administrator to issue regulations that establish a clean-fuel program for urban buses and requires such buses to operate on such fuels. These are intra-city type buses, i.e., the public transit buses of Miami, New York, Boston, Chicago, San Francisco, and other urban areas. They

are not the inter-state or inter-city buses that crisscross our States and Nation.

This program must require that new urban buses operated primarily in metropolitan areas having a 1980 population of over 750,000 be clean-fuel vehicles capable of operating, and exclusively operated, on clean alternative fuel. The program also requires regulations for other than new urban buses in the areas subject to the program that have their engines replaced or rebuilt meet the same requirements, taking into consideration costs, energy safety, and other factors, such as the age of the buses.

The Committee notes that according to the Department of Transportation (DOT) in an April 13, 1990 letter to the Committee, there is little information on retrofiting. DOT said:

We are unable at this time to provide any meaningful data on the cost and practicality of retrofiting existing vehicles to methanol. Indeed, one of the goals of the AFI program is to obtain such information. The age and condition of the individual vehicle to be converted, and the amount of work required to retrofit to methanol, are the major factors in determining cost and practicality. At this time, it appears that a retrofit of an existing engine to methanol is not a practical approach. The additional components required (e.g., new injectors, glow plugs, fuel cooling system, modifications to the bypass engine blower, and the replacement of the existing fuel tank) are sufficiently complex to warrant the replacement of the entire engine system with a new methanol engine instead.

Nationally, the average fleet age of transit buses is eight years. Over 3,000 new buses are purchased each year. UMTA regulations established the minimum useful life of a transit bus to be 12 years before replacement. Age is by far the most common factor in the replacement of a transit bus; however, it may be practical for some buses to remain in service for a longer period of time, if it is determined that repairs would be more cost-effective than replacement.

The Administrator is to phase-in the requirements of the subsection applicable to the purchase of new urban buses over the 1992 through 1995 model years for buses, which generally begins after December 15 each year. The requirements for rebuilt buses will take effect after January 1, 1995. If the Administrator finds that delaying the program would substantially increase its benefits or decrease its costs, the requirements may be postponed for up to two years.

Under the phase-in, 100 percent of the buses purchased and placed into service must be clean fueled after January 1, 1995. After that same date, at least 30 percent of the purchases in all of the applicable areas in each model year shall be clean fuel vehicles that *exclusively* use either natural gas, ethanol, or methanol or any another clean alternative fuel with comparable emissions.

The Committee wants to encourage the development and use of CNG, ethanol, methanol, and electric powered vehicles. We understand that new methanol and CNG buses are being developed and

CLEAN AIR ACT AMENDMENTS AND SOLID WASTE  
DISPOSAL ACT

MAY 14, 1965.—Ordered to be printed

Mr. MUSKIE, from the Committee on Public Works, submitted the  
following

R E P O R T

[To accompany S. 306]

The Committee on Public Works, to whom was referred the bill (S. 306) to amend the Clean Air Act to require standards for controlling the emission of pollutants from gasoline-powered or diesel-powered vehicles, to establish a Federal Air Pollution Control Laboratory, and for other purposes, having considered the same, report favorably thereon with amendments and recommend that the bill do pass. The amendments are indicated in the bill as reported and are shown in linetype and italic.

PURPOSE

The purpose of title I of S. 306 is to—

(1) Provide for recommended motor vehicle exhaust emission standards by the Automotive Vehicle and Fuel Pollution Technical Committee and, by regulations, for the establishment of standards, requirements, or limitations on emissions from new motor vehicles or new motor vehicle engines and devices or motor vehicle design not later than September 1, 1967. Such regulations may be amended and become effective on date to be specified. "Motor vehicle" is defined as any gasoline-powered, self-propelled vehicle designed for transporting persons or property on a street or highway. "New motor vehicle" is defined as a motor vehicle, the equitable or legal title to which has never been transferred by a manufacturer, distributor, or dealer to an ultimate purchaser.

(2) Provide for the prohibition of distribution in commerce the manufacture for sale, the sale, or the offering for sale, introduction, or delivery for introduction into commerce, or the importation into the United States for sale or resale, of any new motor vehicle or new motor vehicle engine manufactured after the effective date of regulation unless it is in conformity with such

regulations. It is also required that such vehicles or engines offered for importation must meet prescribed regulations. A procedure is prescribed for inspection of plant and facilities and for records and reports to be maintained by manufacturers. Certain new motor vehicles or new motor vehicle engines may be exempt from prohibitions.

(3) Provide for the development of standards for allowable emissions from diesel-powered vehicles, and for recommendations to be made to Congress by January 31, 1967, for possible legislation to regulate discharge of pollutants.

(4) Provide for enforcement procedures for the abatement of air pollution adversely affecting a foreign country.

(5) Authorize the conduct and acceleration of research programs relating to means of controlling hydrocarbon emissions resulting from the evaporation of gasoline in carburetors and fuel tanks, and the means of controlling emissions of oxides of nitrogen and aldehydes from gasoline-powered or diesel-powered vehicles and low cost means of reducing sulfur oxide emissions from the burning of fossil fuels. Add representatives of diesel-powered industry to Automotive Vehicle and Fuel Pollution Committee of the Clean Air Act.

(6) Authorize the construction of a Federal Air Pollution Control Laboratory.

The purpose of title II of S. 306 is to—

(1) Authorize the initiation and acceleration of a national research and development program for new and improved methods of proper and economic solid waste disposal, reducing the amount of waste and unsalvageable material and recovering and utilizing potential sources of solid waste, and provide technical and financial assistance to State and local governments and interstate agencies in planning, developing, construction, and conduct of solid waste disposal programs.

(2) Provide that not to exceed 25 percent of funds appropriated for this purpose may be made for grants-in-aid, or to contract with, public or private agencies and institutions and to individuals for research and training.

(3) Authorize grants to State, municipality, or intermunicipal or interstate agency for the purpose of assisting in the development of any project which will demonstrate a new or improved method of disposing of solid waste. Up to two-thirds of the cost of any project approved may be paid from funds appropriated. No more than 12½ percent of appropriations authorized and amended for projects may be made in any one State. Grantee must have appropriate ordinances or regulations prohibiting open burning of solid wastes and provide for enforcement action to insure that beneficial results will occur. Also, assurances must be given that proper and efficient operation and maintenance of facility for which funds have been provided. All of the information, copyrights, uses, processes, patents, and other developments resulting from activity financed with Federal funds will be made available to the general public.

(4) Encourage cooperative activities by States and local governments in connection with solid waste disposal programs, encourage planning, and encourage the enactment of improved,

and, so far as practicable, uniform State and local laws governing solid waste disposal.

(5) Authorize up to 10 percent of funds available for the solid waste disposal program to be used in connection with the grants for support of air pollution control programs of the Clean Air Act. Grants would be made in an amount of up to two-thirds of the cost of making surveys of solid waste disposal practices and problems within the jurisdictional areas of appropriate agencies, and development of solid waste disposal plans. Assurances must be given that the planning of solid waste disposal will be coordinated with other related State, interstate, regional, and local planning activities, including those financed in part with funds pursuant to section 701 of the Housing Act of 1954.

(6) Insure compliance with provisions of the Davis-Bacon Act for a project constructed under this act.

(7) Authorize to be appropriated \$20 million for fiscal year ending June 30, 1966, and fiscal year ending June 30, 1967, for the solid waste disposal program and section 104(d) of the Clean Air Act.

#### GENERAL STATEMENT

The Special Subcommittee on Air and Water Pollution, over a period of 2 years, has held numerous hearings on the problem of air pollution. A number of these hearings have been held throughout the country where the committee has learned firsthand the effect of air pollution in our Nation. Extensive hearings were held as well in Washington, D.C.

During January, February, June, and July 1964, following the enactment of the Clean Air Act, the subcommittee conducted field and technical hearings to obtain factual data to be used as a basis for determining whether additional legislative action was required. Subsequently, a subcommittee report entitled "Steps Toward Clean Air" documented the findings of hearings and recommended legislative action.

On January 7, 1965, 21 Senators introduced S. 306, which was designed to provide legislative implementation to the recommendations contained in the subcommittee report. On April 6, 8, and 9, 1964, hearings were held in Washington, D.C., on the measure and testimony was received from witnesses representing industry, State and local governments, health organizations, conservation groups, Federal officials, and other interested parties. On April 7, 1965, hearings were held in Detroit, Mich., to obtain testimony from representatives of the automobile industry on the portion of the measure relating to automotive air pollution. Also, an inspection was made of research facilities of the industry where firsthand information was obtained on techniques developed to control automotive air pollution and the capability of the industry to reduce this source of pollution.

The committee believes that this legislation is essential if we are to successfully combat the air pollution problems present at this time and those which inevitably will occur unless early corrective action is taken. Automotive exhausts are not the only source of air pollution, but they are a major problem and they are increasing rapidly.

The committee has determined from the automotive industry's own testimony that it can meet the California standards of 275 parts per million of hydrocarbons and not more than 1.5 percent by volume of



carbon monoxide and does intend to meet them. The committee believes that these standards can be applied and are reasonable. By applying them, the Nation will take a major step toward the control and abatement of air pollution.

The committee believes that exact standards need not be written legislatively but that the Secretary should adjust to changing technology.

The committee believes that the indicated costs of automotive emission control equipment are modest and commensurate with the need to reduce this major source of air pollution. The Secretary can take early action in establishing standards of emissions for blowby because of progress already made by industry in installing them on many vehicles.

The committee also believes that the manner of meeting the standards, whether by engine modification or by attaching a device, should be left to the manufacturer's determination.

The Automotive and Fuel Pollution Technical Committee should move rapidly with their recommendations to the Secretary.

The effectiveness of this program will depend in large part on proper maintenance of motor vehicle engines equipped or modified to reduce harmful exhaust emissions. The major obstacle to inspection is the lack of a simple exhaust emission testing system adaptable to large scale inspections. The Department of Health, Education, and Welfare should carry forward activities to help develop means of assisting States in testing motor vehicle emissions.

The committee expects that the Department of Health, Education, and Welfare will reach an understanding with each domestic manufacturer on how inspections will be made to determine compliance. Inspections should not be such as to disrupt normal manufacturing processes in or any way disrupt assembly line operations.

It is also evident to the committee that further research is needed to determine effects of automotive pollutants other than hydrocarbons and carbon monoxide and to find means of controlling them and to advance the research activities relating to reducing the emissions of oxides of sulfur produced by the combustion of sulfur-containing fuels. The committee is convinced that a Federal Air Pollution Control Laboratory is needed to provide facilities to carry out research and experimentations in perfecting methods and means of reducing air pollution; however, it is not expected or desired that the laboratory duplicate available Federal basic research facilities.

The committee believes that it is important that the Clean Air Act be amended so that not only is there provided a basis for action to abate pollution in our country but also to adopt a procedure whereby we can cooperate with foreign countries in cases involving endangerment of health or welfare. It is expected that the Department will initiate actions involving Canada, upon advice from the International Joint Commission, and the appropriate governmental agency in the case of situations involving Mexico. The language of the bill provides for enforcement proceedings to correct international pollution problems originating in the United States. The committee urges the administration to seek agreements with Canada and Mexico to help protect U.S. citizens from air pollution originating in those countries.

The Department of Health, Education, and Welfare had suggested language which would provide for a conference procedure, in addition to that provided for in the Clean Air Act relative to abatement of

air pollution. This would call for findings and recommendations by the Secretary but would be only advisory in nature and would be admitted as part of the record of proceedings under the abatement proceedings of the Clean Air Act. The committee is of the opinion that the Department of Health, Education, and Welfare has not yet had sufficient experience to determine the necessity and desirability of setting advisory standards. Also, such activities might dissipate their efforts when these efforts should be concentrated on abatement action. The committee is disappointed that the Department has not been more active in pursuing the abatement courses provided for in the Clean Air Act.

The committee believes that it is important that the Department of Health, Education, and Welfare coordinate their research and development program in the solution of the air pollution problem with the efforts of other Federal agencies, State and local agencies and groups, and private companies and individuals who have knowledge and information concerning the problem and its possible solution. The committee is convinced that the solution to the air pollution problem will require the utilization of all available talents.

The committee has learned of the vast amount of solid waste which has to be disposed of each day, the problem incident to coping with its sheer volume, and the effect on the health and welfare of our people. Consequently, the committee believes that a Federal program of assistance is essential to stimulate action in this field.

#### NEED FOR LEGISLATION

The Congress, in taking action in passing the Clean Air Act, gave recognition to and provided means of attacking air pollution which results from excessive concentrations of gases, liquids and solids introduced into the atmosphere by human activities. These pollutants are generated by simple devices such as heating of homes and backyard incinerators to some of the more complex sources which have emerged as a result of our modern technology and booming industrial progress.

It was obvious, when the Clean Air Act was enacted into law, that more specific legislative requirements would be needed from time to time in order to provide the necessary tools to insure corrective measures.

In all of the hearings held since the adoption of the Clean Air Act of 1963, automotive exhaust from some 84 million automobiles, trucks, and buses was cited as responsible for about 50 percent of the national air pollution problem. Photochemical air pollution, or smog, is a problem of growing national importance and is attributable largely to the operation of the motor vehicle. This type of air pollution is appearing with increasing frequency and severity in metropolitan areas throughout the Nation, and studies indicate that it produces adverse health effects, eye irritation, and plant damage.

A number of State governments are showing more concern for the preservation of air quality and have taken steps to control automotive air pollution and are evaluating the problem as a preliminary to taking control steps.

The State of California leads in the establishment of standards for regulation of automotive pollutant emissions. The acute smog problem in Metropolitan Los Angeles forced the control of exhaust carbon monoxide and hydrocarbons and crankcase emissions. Other

States, such as New York, New Jersey, Pennsylvania, Colorado, Illinois, Indiana, Kansas, New Hampshire, and the District of Columbia have imposed, or are considering the imposition of restrictions on automotive emissions.

The California Motor Vehicle Pollution Control Board, on June 17, 1964, approved four exhaust control devices for installation on new passenger cars. Pursuant to the California law, new 1966 vehicles for which controls are available must be equipped with exhaust controls to be eligible for California registration. On March 10, 1964, the Automobile Manufacturers Association announced that 1967 model year cars produced for California would be equipped with exhaust emission control systems which would meet California standards for hydrocarbons and carbon monoxide. The Automobile Manufacturers Association also advised that the high-volume production 1966 model year cars delivered for sale in California would be equipped with automotive exhaust emission control systems. In view of the fact that the automobile is one of the principal sources of air pollution and manufacturers have the capability of incorporating air pollution reduction facilities in their vehicles, there is no apparent reason why the entire Nation should not benefit from such advances. Also, it would be more desirable to have national standards rather than for each State to have a variation in standards and requirements which could result in chaos insofar as manufacturers, dealers, and users are concerned.

In addition to hydrocarbon and carbon monoxide, there are other emissions which have been determined to be harmful, or potentially harmful, but means of controlling them and the extent of their damage has not been finally determined. Therefore, it is necessary to accomplish necessary research to find ways of effecting corrective action where needed.

The Clean Air Act prescribes a procedure for actions to abate air pollution in State and interstate areas of the Nation. However, there is no provision which would authorize cooperative action with foreign countries when air pollution is endangering the health or welfare or their people. It is important that we, in the interest of international amity and in fairness to the people of other countries, afford them the benefit of protective measures. International negotiations will be necessary to provide reciprocal benefits for U.S. citizens.

The Clean Air Act directs the Secretary of Health, Education, and Welfare, under section 3(b)(8) to "develop effective and practical processes, methods and prototype devices for the prevention or control of air pollution." The act also, under section 6, directs the Secretary to place emphasis on the special problem of automotive vehicle and fuel pollution and provides a sane approach to the problem for the formation of a technical committee with industry and Government representation to evaluate progress, to make recommendations, and to report semiannually to the Congress.

It is clear that the new statutory provisions will require a substantial new effort in the research and development aspects of control devices to the prototype stage, and also careful evaluation and comparative assessments of new and alternative techniques for control of automotive pollution, as well as other types of industrial and domestic pollution.

The committee is aware of the fact that there is existing authority under the Public Health Service Act for the establishment of such addi-

tional institutions, hospitals, and stations as are necessary to enable the Service to discharge its functions and duties. However, in the discharge of his responsibility under the Clean Air Act, the Secretary must be equipped to provide the assistance called for in facilities that are properly located, constructed, equipped and staffed to provide the specialized services called for in establishing criteria, testing of engines, testing of air pollution control devices, and conducting research into methods and processes for reducing air pollution.

The problem of solid wastes collection and disposal is one of the neglected areas of pollution control. Studies conducted by the American Public Health Association and the Public Health Service shows that less than half of the cities and towns in the United States with populations over 2,500 have approved sanitary methods of disposing of the estimated 90 million tons of refuse they produce each year and which must be removed and disposed of either through burning, burial, or conversion into forms of organic matter for final disposition or put to useful purposes.

State and local programs to stimulate local improvements in solid wastes storage, collection and disposal are lacking. In 1964, only 12 States reported to the Public Health Service that they had identifiable solid waste activities, while 31 indicated no program at all.

At the Federal level, activities have been meager in relation to the size and scope of the problem. Although the Public Health Service has, for many years, encouraged and supported research on solid waste problems, its efforts would appear to fall far short of research needs. The Public Health Service's total expenditure in fiscal year 1964 in this field was about \$430,000, of which \$360,000 was used to support research projects carried out by non-Federal institutions.

#### MAJOR PROVISIONS OF THE BILL

##### *Title I amendments to the Clean Air Act*

Section 101 would amend the Clean Air Act by inserting a new heading above the heading of section 1 as follows: "Title I—Air Pollution Prevention and Control" and changing the numbering of sections 1 through 7 as sections 101 through 107, redesignate sections 8 through 14 and references as sections 301 through 307, by inserting immediately above the heading of redesignated section 301 "Title III—General," and striking out present references and inserting appropriate references to title and section numbers.

##### *Motor vehicle pollution*

A new title designated as "Title II—Control of Air Pollution From Motor Vehicles" would be inserted immediately following redesignated section 107 and would contain a series of sections designated as sections 202 through section 209.

New section 201 would designate title II as "Motor Vehicle Air Pollution Control Act."

New section 202 would direct the Secretary of Health, Education, and Welfare, by regulation, giving appropriate consideration to technological feasibility and economic costs, to prescribe standards, requirements, or limitations applicable to the emissions of any kind of substance, from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause or contribute to, or are

likely to cause or contribute to, air pollution which endangers the health or welfare of any persons.

Regulations initially prescribed under this section shall, as soon as practicable, be promulgated by the Secretary, to become effective no later than September 1, 1967.

The Secretary is authorized to amend such regulations promulgated under this section, to become effective on the date specified in the order promulgating the amendments.

New section 203 directs the Secretary, as soon as practicable, to develop standards for allowable emissions from diesel-powered vehicles manufactured and introduced into interstate commerce or imported into the United States. The Secretary is also directed to make recommendations to the Congress for additional legislation to regulate the discharge of pollutants from diesel-powered vehicles by January 31, 1967.

New section 204 prohibits the introduction or delivery for introduction into commerce, or the importation into the United States for sale or resale of any new motor vehicle or new motor vehicle engine, manufactured after the effective date of regulations which are applicable to such vehicle or engine unless it is in conformity with such regulations except that the Secretary may exempt any new motor vehicle or new motor vehicle engine, or class thereof, from the prohibition upon such terms and conditions as he may find necessary to protect the public health or welfare, for the purpose of research, investigations, studies, demonstrations, or training, or for reasons of national security.

A new motor vehicle or new motor vehicle engine offered for importation by a manufacturer in violation of regulation shall be refused admission into the United States, but the Secretary of the Treasury and the Secretary of Health, Education, and Welfare may, by joint regulation, provide for authorizing the importation of such a motor vehicle upon such terms and conditions (including the furnishing of a bond) as may appear to them appropriate to insure that motor vehicle may be brought into conformity with the standards, requirements, and limitations applicable.

A new motor vehicle or motor vehicle engine intended solely for export shall not be subject to the prohibitions if it is shown that the failure so to comply would not be in conflict with any standard, requirement, or limitation imposed by the country of designation and such compliance would make the vehicle unacceptable to the purchaser or consignee.

New sections 205, 206, 207, 208, and 209 relate to injunction proceedings, penalties, inspections, records and reports and definitions for new title II relating to control of air pollution from motor vehicles.

The committee has found that the automotive industry has the capability for limiting the emissions of hydrocarbons and carbon monoxide from both the crankcase and exhaust systems of gasoline-powered motor vehicles and found a willingness to accept legislation which would establish national standards, and it is the hope of the committee that individual States will accept national standards rather than additionally impose restrictions which might cause undue and unnecessary expense to the user.

The committee has learned that the means of controlling diesel emissions through design and manufacturing changes are not as readily



90TH CONGRESS }  
1st Session }

SENATE

{ REPORT  
No. 403

AIR QUALITY ACT OF 1967

AMENDING THE CLEAN AIR ACT  
AS AMENDED

---

REPORT

OF THE

COMMITTEE ON PUBLIC WORKS  
UNITED STATES SENATE

TO ACCOMPANY

S. 780



JULY 15, 1967.—Ordered to be printed under authority of the order  
of the Senate of July 13, 1967

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U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1967

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90TH CONGRESS }  
1st Session }

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{ REPORT  
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III

# Calendar No. 390

90TH CONGRESS }  
1st Session }

SENATE }

REPORT  
No. 403

## AIR QUALITY ACT OF 1967—AMENDING THE CLEAN AIR ACT AS AMENDED

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JULY 15, 1967.—Ordered to be printed  
(Filed under authority of the order of the Senate of July 13, 1967)

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Mr. MUSKIE, from the Committee on Public Works,  
submitted the following

### REPORT -

together with  
INDIVIDUAL VIEWS

[To accompany S. 780]

The Committee on Public Works, to which was referred the bill (S. 780) to amend the Clean Air Act to improve and expand the authority to conduct or assist research relating to air pollutants, to assist in the establishment of regional air quality commissions, to authorize establishment of standards applicable to emissions from establishments engaged in certain types of industry, to assist in establishment and maintenance of State programs for annual inspections of automobile emission control devices, and for other purposes, having considered the same, reports favorably thereon with amendments and recommends that the bill as amended do pass.



## CLEAN AIR ACT

S. 780

## REGISTRATION OF FUEL ADDITIVES

*SEC. 210. (a) Secretary by regulation may designate fuels which must be registered by him before introduction in interstate commerce.*

*(b) Manufacturer to notify him of fuel additives. Additive manufacturer to notify him as to nature of additive.*

*(c) Provision for protection of trade secrets.*

*(d) Provides for civil penalty of \$1,000 per day for violation.*

## DEFINITIONS FOR TITLE II

SEC. 208.

*SEC. 211, as redesignated by S. 780.*

No change.

## TITLE III—GENERAL

## ADMINISTRATION

SEC. 301.

No change.

## DEFINITIONS

SEC. 302.

No change.

## OTHER AUTHORITY NOT AFFECTED

SEC. 303.

No change.

## RECORDS AND AUDIT

SEC. 304.

No change.

## COMPREHENSIVE ECONOMIC COST STUDIES

*SEC. 305. (a) Authorizes Secretary to conduct five year economic study of costs of implementation of provisions of Act upon the Nation's economy.*

*(b) Secretary directed to evaluate government personnel needs to carry out provisions of Act and Federal training program capability to meet needs.*

## CLEAN AIR ACT

S. 780

## ADDITIONAL REPORTS TO CONGRESS

*SEC. 306. Calls for annual report to Congress on steps taken to implement provisions of Act.*

## SEPARABILITY

SEC. 305.

*SEC. 307, as redesignated by S. 780.*

No change.

## APPROPRIATIONS

SEC. 306.

*SEC. 308, as redesignated by S. 780.*

*Authorization for other than sections 103(d) and 104, of \$75, \$100, and \$150 million for fiscal years 1968, 1969, and 1970, respectively.*

## SHORT TITLE

SEC. 307.

*SEC. 309, as redesignated by S. 780.*

No change.

## IX. PENDING QUESTIONS

### INCENTIVE ASSISTANCE FOR INDUSTRIES

Once again this year a number of witnesses, especially those representing industry and industrial organizations, discussed the need for various types of tax relief to assist industry in meeting its costs of pollution control, a matter which is not within the jurisdiction of this committee.

Last year when the committee reported the Clean Water Restoration Act the following statement appeared:

This committee strongly recommends that the appropriate congressional committees give consideration to tax relief proposals for industrial pollution control activities.

For the most part, pollution control does not provide a return on an investment to an industry. Installation of pollution control devices is costly and, in many cases, nonremunerative. The billion dollars of capital investment which will have to be made by the industrial sector for the benefit of the entire society will place a substantial burden on corporate resources, and ultimately on the general public. The committee suggests that there are several alternative methods of aiding industry in meeting its pollution control obligations.

The committee reasserts this position and strongly urges that the appropriate committees of the Congress consider tax relief legislation.

While tax relief legislation is not a matter over which this committee has jurisdiction, two areas which have not as yet been thoroughly explored may be considered in the future.

It has been suggested that the committee give consideration to authorizing a Federal loan program designed to assist industry with the costs of air pollution control. This type of Federal assistance has been utilized to facilitate a number of social programs, the most well known of which is the rural electrification program which provides 2-percent money to assist in supplying power to sparsely populated rural areas.

As rural electrification is a social program designed to enhance the welfare of our rural citizens, the control of pollution is an ever more important welfare requirement of our urban population. The committee intends to review proposals of this type to determine their applicability to this particular situation.

For those plants which due to their age do not justify major capital investment for pollution control and therefore are confronted with potential closure it has been suggested that a limited Federal grant program be authorized. This type of program could have the salutary effect of limiting undue economic disruption in some of the Nation's older communities while, at the same time, cleaning up the air over those cities.

It is important that any Federal assistance program, whether it be incentives, loans, or grants, provide adequate assurance that those facilities assisted will be designed to attain maximum performance. Performance requirements should be related to air quality standards and Federal assistance made available on that basis.

#### ALTERNATIVES TO INTERNAL COMBUSTION

The Subcommittee on Air and Water Pollution and the Committee on Commerce held 5 days of joint hearings on legislation to authorize development of electric vehicles and other alternatives to the internal combustion engine. A great deal of valid information was gained which, because of the interrelationship of the automobile and air pollution, is worthy of comment in the report.

The Federal Government is involved in considerable research into alternatives to the internal combustion engine, including studies bearing on the development of a satisfactory electric vehicle. Under the scope of existing legislation, the Clean Air Act and the research and development mandates of several departments, these research efforts might be expanded to accomplish the aims of S. 451 and S. 453. The present nature of Federal involvement in developing nonpolluting alternatives to internal combustion, as an adjunct to, and resource for, an energetic research and development program by industry, seems best suited to present needs.

The Federal Government has a clear role in protecting the public health and a subsequent interest in the rapid reduction of emissions from vehicular sources, and must give support to efforts in this field. However, as long as private efforts demonstrates sufficient regard for the public interest, the Federal Government must be shy of going beyond its role and influencing markets by the massive infusion of funds into a limited area of endeavor.

Nevertheless, Federal research into batteries, fuel cells, electrical vehicular systems, and other alternative propulsion systems is producing significant results, and these programs might well be extended.

Paradoxically, while the problem is mainly one in the civilian sector, most of this work is presently concentrated in the Department of Defense and its contractors, through their attempts to insure the immediate nonclassified, civilian utilization of the fruits of this research. Greater distribution of projects throughout transportation-conscious departments should be sought. An estimated \$20 million has been spent in Federal research on battery and fuel cell development, primarily in NASA and Defense programs.

Within existing legislation, the research efforts now under the Department of Defense and NASA should continue. Additional funding would be valuable for related programs of the Bureau of Mines, the Department of Health, Education, and Welfare, the Department of Housing and Urban Development, and the Department of Commerce. The Bureau of Mines must be concerned not only with its projects to develop catalysts for fuel cells, but with the greater questions of adequate mineral resources for a changing transportation technology. There is a need for the Department of Transportation to undertake studies of the feasibility and effects of various alternative systems of private and mass transportation.

Encouragement should be given to the programs of the Department of Housing and Urban Development which focus on considering

transportation and the total urban environment in a systems analytic framework. And importantly, the research efforts of the National Center for Air Pollution Control, should be further stimulated and funded in the field of securing low-pollution propulsion systems. HEW now has the authority to build prototype electric uses, for example, and with adequate funding they could engage in this type of project.

There are, in fact, several Federal agencies which under existing legislation could contribute to the development of alternative propulsion systems by making use of prototype vehicle systems. The Post Office Department, which until 1962 was involved in testing electric vehicles adapted to their needs, should reenter this field with the clear aim of supporting solutions to transitional problems. The Post Office has transportation needs suited to the potential of electric vehicles, and in view of the Federal commitment to the reduction of emissions from all Federal sources, would do well to encourage rapid development through creative procurement policies. This is equally true for the General Services Administration, whose purchases of automobiles constitute a sizable portion of the market.

The efforts of private industry to develop low-pollution vehicle systems and to accommodate the change from present internal combustion engines are to be commended. While the figures are not completely reliable, a present estimated \$9 million per year is being invested in private research efforts, and this figure seems to be increasing. The principal thrust of this research effort is long life, high energy (low weight) battery and fuel cell development, by both large and small companies. The major automobile manufacturers and many smaller firms have been working on total vehicle development, as well as improvement of the internal combustion engine.

The most intense interest has been shown by electric utilities (public and private), who with independent research firms have been planning for increased power needs and developing innovative hardware for charging. There are firms and municipal planning agencies who have developed striking special use applications for limited low-pollution transportation systems, such as modular programed systems or specially designed and controlled sections of town.

These industry attempts have included proposals of an imaginative sort, ranging from a nickel-cadmium battery-powered bus, possible today and capable of staying in service all day with regenerative braking to external combustion engines of low emission, to steam engines of improved technology, to breakthroughs like the sodium-sulfur battery. These concerted efforts could pay off in an estimated 10 years with the commercial production of electric vehicles satisfactory to the personal transportation market. Sales of electric vehicles, according to estimates from the Federal Power Commission, might reach 1.5 to 2 million per year by 1975 to 1980, and 3 to 4 million by 1985. At that time they would comprise approximately a third of the market.

Since the benefits from developing nonpolluting vehicle systems will be primarily to the public interest, and private industry might be loathe to commit funds in an untried market situation, it is incumbent upon the Federal Government to minimize the market risk. If the Government, in the pursuit of the public interest, should require the production of a nonpolluting substitute for present transportation



means, it could absorb a portion of the risk by purchasing prototype vehicles meeting its special requirements at unusually high early costs. The Federal Government might well stimulate competition, facilitating an early solution and more adventurous innovations, by rewarding the designs best meeting its established performance criteria.

The Federal Government has an additional role in providing leadership to State and local authorities. Of great immediate help might be a study of social, legal, and economic alternatives open to State and local authorities in trying to control pollution by the proscription of high-emitting vehicles or the encouragement of the use of low-pollution propulsion systems.

It must be clear above all that the Federal Government, in the name of the American people, is fully committed to restoring the quality of our atmosphere by reducing emissions from vehicles. In an effort to do this, the committee is not bound to any single endeavor but encourages any and all approaches which hold out promise of achieving this end.

## **X. INDIVIDUAL VIEWS**

### **INDIVIDUAL VIEWS OF MR. SPONG**

This legislation, in my opinion, represents the most practicable approach to the abatement of air pollution that can be made with the technology and scientific data presently available. States and localities are further encouraged to initiate programs to combat this growing threat.

The bill approved by the committee contemplates the preemption by the Federal Government of the right to set emission standards for automobiles. In my judgment, this is necessary. Testimony by many witnesses from urban areas throughout the Nation demonstrated conclusively that a large percentage of air pollution results from motor vehicles. The number of automobiles expected to be on our highways within the next decade is frightening to comprehend.

To subject auto manufacturers to varied requirements by the several States would constitute an economic hardship that ultimately would be passed on to the purchasers of automobiles. We must not delude ourselves into believing that merely by the establishment of national standards for motor vehicles we can effectively combat air pollution.

In the absence of a requirement for the mandatory inspection of devices installed in automobiles to curb pollution, it becomes the responsibility of the automobile and petroleum industries to develop antipollution devices that are efficient, economical, and durable.

There currently are no low-cost instruments available to measure emission from automobiles, and I would hope that the research grants authorized by the bill will facilitate the development of such instruments. These would be used in States having mandatory periodic inspection requirements for motor vehicles.

It is hoped that the several States will take full advantage of the programs made available to them under this legislation, particularly the disbursal of Federal funds for the encouragement of the inspection of automobiles for antipollution devices.

WILLIAM B. SPONG, Jr.

## XI. CHANGES IN EXISTING LAW

In compliance with subsection (4) of the rule XXIX of the Standing Rules of the Senate, changes in existing law made by the bill as reported are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

### THE CLEAN AIR ACT

## TITLE I—AIR POLLUTION PREVENTION AND CONTROL

### FINDINGS AND PURPOSES

SEC. 101. (a) The Congress finds—

(1) that the predominant part of the Nation's population is located in its rapidly expanding metropolitan and other urban areas, which generally cross the boundary lines of local jurisdictions and often extend into two or more States;

(2) that the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles, has resulted in mounting dangers to the public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation;

(3) that the prevention and control of air pollution at its source is the primary responsibility of States and local governments; and

(4) that Federal financial assistance and leadership is essential for the development of cooperative Federal, State, regional, and local programs to prevent and control air pollution.

(b) The purposes of this title are—

(1) to protect *and enhance the quality of* the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;

(2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;

(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and

(4) to encourage and assist the development and operation of regional air pollution control programs.

### COOPERATIVE ACTIVITIES AND UNIFORM LAWS

SEC. 102. (a) The Secretary shall encourage cooperative activities by the States and local governments for the prevention and control of

91ST CONGRESS }  
2d Session }

SENATE

{ REPORT  
No. 91-1196

NATIONAL AIR QUALITY STANDARDS  
ACT OF 1970

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REPORT  
OF THE  
COMMITTEE ON PUBLIC WORKS  
UNITED STATES SENATE  
TOGETHER WITH  
INDIVIDUAL VIEWS  
TO ACCOMPANY  
S. 4358



SEPTEMBER 17, 1970.—Ordered to be printed

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(III)

## NATIONAL AIR QUALITY STANDARDS ACT OF 1970

SEPTEMBER 17, 1970.—Ordered to be printed

Mr. BYRD of West Virginia (for Mr. MUSKIE, from the Committee on Public Works, submitted the following

## REPORT

together with

## INDIVIDUAL VIEWS

[To accompany S. 4358]

The Committee on Public Works, to which the bill (S. 4358), to amend the Clean Air Act as amended, was referred having considered the same, reports favorably thereon without amendment. An original bill (S. 4358) is reported in lieu of S. 3229, S. 3466, and S. 3546 which were considered by the Committee.

## GENERAL STATEMENT

The committee bill would restructure the methods available to attack a critical and growing national problem of air pollution.

The legislation reported by the committee is the result of deep concern for protection of the health of the American people. Air pollution is not only an aesthetic nuisance. The Committee's concern with direct adverse effects upon public health has increased since the publication of air quality criteria documents for five major pollutants (oxides of sulfur, particulates, carbon monoxide, hydrocarbons and oxidants). These documents indicate that the air pollution problem is more severe, more pervasive, and growing at a more rapid rate than was generally believed.

The new information that carbon monoxide concentrations at levels damaging to public health occur in Chicago more than 22 percent of the time, and that other cities have similar problems with carbon monoxide and other pollutants, intensified the committee's concern to authorize a massive attack on air pollution. This bill is designed to provide the basis for such an attack.

quently, the bill would provide that upon evidence of any violation the Secretary should bring suit for immediate abatement, including a permanent or temporary injunction or restraining order, in the United States District Court in the District in which the source is located.

#### SECTION 116. FEDERAL ENFORCEMENT

The Clean Air Act as amended recognizes that the primary responsibility for control of air pollution rests with State and local government. While Section 116 would restructure the enforcement authority available to the Secretary, the Committee does not intend to diminish either the authority or the responsibility of State and local governments. As is clear in sections 111, 113 and 114 the States would be expected to have or to obtain adequate authority to ensure that the provisions of the act are enforced.

The Committee recognizes, however, that the authority available under existing law has not been adequate to move quickly to abate violations of standards. The Committee also recognizes that the provisions of existing law, although less than adequate, have not been used to the fullest extent practicable. The new authority provided in section 116 would provide the Secretary with the necessary tools to act swiftly to abate violations of the provisions of this Act. The Secretary should not interfere with effective State action and should take into consideration any recommendations for abatement action which have resulted from existing enforcement procedures.

If the Secretary should find that a State or local pollution control agency is not acting to abate violations of implementation plans or to enforce certification requirements, he would be expected to use the full force of Federal law. Also, the Secretary should apply the penalty provisions of this section to the maximum extent necessary to underwrite the strong public demand for abatement of air pollution and to enforce compliance with the provisions of the Act.

If the Secretary and State and local agencies should fail in their responsibility, the public would be guaranteed the right to seek vigorous enforcement action under the citizen suit provisions of section 304.

Because attainment of ambient air quality is possible only through the enforcement of precise and objective emission controls the Committee bill would delete the enforcement requirement for the abatement of violations of the air quality standard. The precise and objective emission controls "subject to enforcement" would include but not be limited to emission requirements, emissions standards, standards of performance, prohibitions of emissions, schedules and timetables of compliance and other requirements for recordkeeping and the installation of monitoring equipment.

The bill would also delete the cumbersome conference and hearing procedures in the existing law. Such administrative procedures were appropriate when criteria did not exist and when evidentiary-gathering devices were needed to relate pollution to ambient air quality. The new formula proposed would authorize the Secretary to issue orders requiring the abatement of any violation of any performance standard, emission standard or, implementation plan, including violations of emission requirements and schedules of compliance. The Secretary would be authorized to issue such an order when he determined that

a State had not satisfactorily administered its enforcement authority under its implementation plan or when there was a violation of Federal standards.

In view of the need for streamlined and expedited enforcement procedures, the Committee intends that the judgment of the Secretary in this instance shall not be reviewable.

In the event that the violation alleged were of an emission control requirement, the time specified in such order for the initiation of abatement action could not exceed 72 hours from the time such order was received. The Secretary would be required to furnish copies of abatement orders to appropriate State enforcement personnel. In the event an order were issued to a corporation, the orders should also be served to appropriate corporate officers.

Any order issued by the Secretary should remain in effect until such time as the Secretary determines that the violation no longer exists and gives written notice of such determination to the violator. The Secretary would have an obligation to review efforts taken pursuant to any order to assure that the order will be withdrawn when compliance is achieved.

If any order issued by the Secretary is not met within the time specified, or if the efforts to abate a violation are unsatisfactory, the Secretary would be authorized to bring a civil action for appropriate relief, including a permanent or temporary injunction or restraining order, in the District Court of the United States for the district in which the alleged violation occurred or is occurring. Failure or refusal to comply with an order would be punished, upon conviction, by a fine of not more than \$25,000.

The Committee recognizes that an owner or operator who is issued a compliance order by the Secretary should be able to challenge such an order without being required to refuse to comply with it, thus risking criminal and civil penalties. Therefore, the bill provides that voluntary compliance would not preclude the owner or operator from initiating an action in the Federal district court to challenge such an order.

In addition to providing for enforcement of promulgated and approved standards, implementation plans, and other emission controls, the bill would authorize the enforcement of correlative and necessary procedural requirements such as furnishing or providing access to information, data and reports, and requirements for the installation of monitoring equipment, or denial of access to copying of records. The expense of installing monitoring equipment required by the Secretary would be borne by the owner or operator of any pollution source. The Secretary would also be given authority to make investigations of buildings, structures, monitoring equipment or other facilities subject to emission requirements, emission prohibitions, and waivers of standards of performance as established under the Act. Authority to enter after presentation of proper credentials would be provided.

The Committee recognizes that sanctions under existing law have not been sufficient to encourage compliance with the provisions of the Clean Air Act. Therefore, the Committee proposes to increase significantly the penalties for knowing violations of provisions of the Act. A conviction for a knowing violation would be subject to a penalty of \$25,000 per day or imprisonment for one year or both.

If conviction is for a second knowing violation, the penalty could be increased to \$50,000 per day of the violation or by imprisonment for two years or both. In addition, civil penalties would be added for knowing violation of the procedural requirements of the Act such as recordkeeping, report filing, information availability or falsifying, tampering with, or rendering inaccurate monitoring devices.

The Committee believes that if the timetables established throughout the Act with respect to ambient air quality standards necessary to protect public health are to be met, the threat of sanction must be real, and enforcement provisions must be swift and direct. Abatement orders, penalty provisions, and rapid access to the Federal District Court should accomplish the objective of compliance.

#### SECTION 118. CONTROL OF POLLUTION FROM FEDERAL FACILITIES

This section would require every Federal agency with control over any activity or real property, to provide national leadership in the control of air pollution in such operations.

Evidence received in hearings disclosed many incidents of flagrant violations of air and water pollution standards by Federal facilities. The Committee believes that lack of federal leadership has been detrimental to the clean air effort. The Federal Government cannot expect private industry to abate pollution if the Federal Government continues to pollute at will. This section requires that Federal facilities meet the emission standards necessary to achieve ambient air quality standards as well as those established in other sections of Title I.

The Committee recognizes, however, that it may be in the paramount interest of the United States that a plant or facility not achieve full air pollution control within the time required. Therefore, the bill would provide plant-by-plant exceptions, on the basis of a statement by the President, for a period of no more than one year.

New one-year extensions could be granted on the basis of a subsequent statement by the President. The President would be required to report each January to the Congress on any such exception during the preceding year, together with a detailed explanation of the need to grant such exceptions.

No exception could be granted due to lack of appropriations, unless the Congress specifically rejected a request for funds that appeared as a line item in the Budget request.

#### SECTION 202. ESTABLISHMENT OF STANDARDS

Title II of the Clean Air Act has been revised to provide additional authority to the Secretary to regulate sources of pollution which move or may move in interstate commerce, or which contribute to endangerment of the health and welfare of the people of the United States.

With the exception of the statutory determination set forth in section 202(b) which requires that the automobile, the major moving source of pollution, meet a rigid timetable and a high degree of emission control compliance, the Secretary would be provided flexibility to act to abate emissions from new and existing aircraft, new and existing vessels and boats, new and existing diesel engines for railroads, and new and existing trucks and buses and other commercial vehicles.



The existing law requires the Secretary to establish standards on the basis of economic and technological feasibility. The proposed bill would require the Secretary to make a judgment on the contribution of moving sources to deterioration of air quality and establish emission standards which would provide the required degree of control. The Secretary is expected to press for the development and application of improved technology rather than be limited by that which exists. In other words, standards should be a function of the degree of control required, not the degree of technology available today.

The regulatory authority in section 202(a) would be essentially the same as existing law, except that prior to promulgating standards the Secretary would be required to consult with advisory committees and other technically competent groups, to the maximum extent practicable, to develop the broadest possible base for the development of standards.

The authority contained in section 202 is expanded by this bill to include authority to set air pollution emission standards for aircraft, vessels, commercial vehicles, and vehicles such as locomotives and self-propelled agricultural equipment. Under this new authority emissions standards may be set for new and existing commercial vehicles, vessels, and aircraft.

Standards for vessels and locomotives are appropriate because of their use characteristically involves interstate travel, with large numbers of them congregating in ports and yards in or near areas of high population and air pollution concentration.

A similar problem of concentration exists with regard to aircraft. While operations of aircraft at major airports do not make a significant contribution to total ambient levels of pollution in urban areas, they pose a serious problem in the vicinity of such airports.

Based on emission characteristics of aircraft engines presently in use, increased ambient levels of nitrogen oxides and particulates in the vicinity of an airport with about 2 millions operations a year will result from air traffic alone.

The authority provided in section 202(a) would continue to be available to the Secretary to establish standards for light duty motor vehicles (passenger cars) during the period prior to and following the effective date of the standards established by subsection (b).

It is expected that section 202(a) authority would be used for regulation of particulate emissions. No present measurement techniques exist to evaluate or establish standards for such particulate emissions. Such standards cannot be established on the basis of 1970 vehicles as required by subsection (b) because measurement techniques will not exist until 1972. At such time as measurement methods are developed the Secretary would be expected to establish standards for particulate emissions under 202(a) authority.

Subsection (b) is a departure from existing method for prescribing emission standards for moving sources of pollution. In 1964, the Senate Committee on Public Works considered legislation which would have established, in Federal law, the standards of emission performance then applicable to vehicles to be sold in California. The automobile industry argued that writing standards into Federal law would not be appropriate because California's problem of automotive air pollution was unique and that different degrees of control for different pollutants would be needed to deal with problems in other areas of the nation.

The 1965 Clean Air Act Amendments provided the Secretary with the maximum flexibility to meet potentially differing needs, but the 1965 statute clearly indicated that the Secretary's standards should be based on the needs of the worst area of the nation—not the average—and that technology should be pressed as rapidly as possible to overcome the extended time lapse between application of emission controls and replacement of the entire vehicle population.

Since enactment of the Air Quality Act of 1967, and the accelerated pace of air quality criteria development, evidence on the principal pollution problem areas and the principal pollutants has been published.

Those criteria documents indicate that the health levels of pollution agents associated with vehicle emissions were exceeded substantially in many major cities. Information provided the Committee by the Administration indicated that, under the existing new vehicle emission control program (and without regard to the steps which would be taken pursuant to Title I of this Act) it would be 1990 before ambient levels of motor vehicle related pollutants would be brought down to the level necessary to protect the health of persons. This conclusion is based on the following data:

A. The ambient standard necessary to protect the public health from carbon monoxide is 8–10 parts per million (ppm). This compares with ambient air in Chicago measured at 44 ppm. The 1970 Federal emission standard for automobiles for carbon monoxide is 23 grams per mile (existing test procedure). To achieve the public health ambient standard would require emission controls placed on automobiles permitting emissions of only 5 grams per mile, a figure which represents the 1980 emission requirement as proposed by the Administration. To achieve sufficient replacement of automobiles with autos having the emission controls meeting 1980 standards will take an estimated ten years.

B. The ambient air health standard for photochemical oxidants (hydrocarbons) is 0.06 ppm. To achieve such ambient standard would require a reduction of hydrocarbon emissions from automobiles from the 1970 standard of 2.2 gm/mile to an emission level of 0.2 gm/mile. This last figure is the approximate equivalent of the proposed 1980 emission standard.

C. The ambient health standard for nitrogen oxides is anticipated to be about 0.10 ppm. This compares with an ambient condition found in most metropolitan areas of 0.50 to 0.60 ppm. To achieve the health standard would require a reduction from the proposed 1973 emission standard of 2.0 grams per mile to an emissions requirement for automobiles of 0.45 grams per mile, or approximately the proposed 1980 standards.

The following summary document provided by the National Air Pollution Control Administration indicates the degree of reduction of emission that would be necessary to meet health standards.

#### DERIVATION OF 1980 MOTOR VEHICLE EMISSION GOALS

The National Air Pollution Control Administration has estimated that new motor vehicles must achieve a minimum reduction of emissions from a no-control baseline (pre-1968 models) of the following orders of magnitude to insure attainment of health-related air quality levels:

	Percent
Carbon monoxide.....	92.5
Nitrogen oxides.....	93.6
Hydrocarbons.....	99.0

The derivation of these emission goals was explained in detail in a paper presented in June 1970 at the annual meeting of the Air Pollution Control Association (D. S. Barth et al., Federal Motor Vehicle Emission Goals for Carbon Monoxide, Hydrocarbons, and Nitrogen Oxides Based on Desired Air Quality Levels).

This statement presents a simpler explanation of the derivation of the above motor vehicle emission-reduction goals.

Based on data contained in air quality criteria documents already issued (for carbon monoxide and photochemical oxidants) or in preparation (for nitrogen oxides) and on requirements for margins of safety, it has been concluded that the following ambient air quality levels must be attained to insure protection of public health:

Carbon monoxide, 9 ppm/8-hour average.

Photochemical oxidants, 0.06 ppm/1-hour average.

Nitrogen dioxide, 0.10 ppm/1-hour average.

The motor vehicle emission reductions needed to insure attainment of the above ambient air quality levels are a function of existing ambient air levels of carbon monoxide, oxidant precursors (hydrocarbons and nitrogen oxides), the relationship between oxidant precursor levels and oxidants, and anticipated growth in motor vehicle emissions (resulting from increases in the numbers and use of motor vehicles).

Motor vehicle emission standards must permit attainment of the health-related air quality levels throughout the Nation. The highest levels of carbon monoxide, hydrocarbons, and nitrogen oxides currently measured are as follows:

*Maximum Ambient Air Levels Related to Direct Health Effects*

Carbon monoxide: 44 parts per million/8-hour average, Chicago.

Nitrogen dioxide: 0.69 parts per million/1-hour average, Los Angeles.

*Maximum Ambient Air Levels of Oxidant Precursors*

Hydrocarbons: 5.3 parts per million/6 to 9 a.m. average, Los Angeles.

Nitrogen dioxide: 0.62 parts per million/6 to 9 a.m. average, Los Angeles.

(These hydrocarbon and nitrogen dioxide measurements are associated with Los Angeles peak values for oxidants.)

The strategy employed to calculate needed reductions in hydrocarbon and nitrogen oxides emissions was as follows: A sufficient reduction in nitrogen oxides emissions to insure

attainment of the health-related nitrogen oxides ambient air level; then, assuming attainment of the health-related nitrogen oxides level, a sufficient reduction in hydrocarbon emissions to insure attainment of the health-related photochemical oxidant level.

Based on these considerations, equations calculating needed reductions of carbon monoxide, hydrocarbon, and nitrogen oxides emissions were developed. The equations make allowances for anticipated growth in emissions and for natural background levels. The calculations produced the required percent reductions. These reductions assume that all stationary sources which contribute to the presence of carbon monoxide, hydrocarbons, and nitrogen dioxides in the ambient air could be reduced by a like percent.

Given a ten-year car life, the health related air quality levels could be attained in 1990 if all new cars produced after 1980 achieved the calculated emission-reduction goals. An earlier target data for meeting the emission-reduction goals would permit earlier attainment of the indicated air quality levels.

NAPCA's advanced power systems research and development program, as currently planned, is structured to produce, by 1975, two second-generation prototypes capable of meeting the 1980 emission-reduction goals.

Battelle Memorial Institute has estimated that well-designed, unconventional power plants could meet the following emission limitations:

Type	HC <sup>1</sup>	CO <sup>1</sup>	NO <sub>2</sub>
Natural gas-piston.....	1.2	3.0	0.6
Steam (rankine).....	.1	.4	.3
280-hp gas turbine-regenerating.....	.4	.3	.8
Stirling.....	.04	.2	3.0
Hybrid turbine.....	.04	.3	.8

<sup>1</sup> Grams based on 1970 7-model cycle.

Note: Symbols=HC (hydrocarbons), CO (carbon monoxide), and NO<sub>2</sub> (nitrogen dioxide).

On the basis of information and hearings in 1964, 1965, 1967, and 1970, the committee concluded that 1975 would be the earliest possible date for application of the proposed standards.

This decision was based on recognition that technology may not be available to meet these standards within the next year and that the regular lead time which, in 1964, the industry indicated would be two years, should be supplemented by an additional period for the development of the control technology required to meet these standards.

The Committee recognized that even the lead time provided might not be adequate to tool up both technologically and mechanically for the standard, and therefore adopted an amendment offered by Senator Cooper providing a procedure whereby the deadline of model year 1975 or January 1, 1975 (the Committee recognizes that model years often begin in September of the preceding year) could be extended for one year only if after a hearing the Secretary determined that technology was not available, or had not been available to the appli-

# **ELECTRIC VEHICLES AND OTHER ALTERNATIVES TO THE INTERNAL COMBUSTION ENGINE**

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1706-2

**JOINT HEARINGS**  
**BEFORE THE**  
**COMMITTEE ON COMMERCE**  
**AND THE**  
**SUBCOMMITTEE ON**  
**AIR AND WATER POLLUTION**  
**OF THE**  
**COMMITTEE ON PUBLIC WORKS**  
**UNITED STATES SENATE**  
**NINETIETH CONGRESS**  
**FIRST SESSION**

**ON**

**S. 451**

**A BILL TO AMEND THE CLEAN AIR ACT IN ORDER TO  
AUTHORIZE AN INVESTIGATION AND STUDY TO DETER-  
MINE MEANS OF PROPELLING VEHICLES SO AS NOT TO  
CONTRIBUTE TO AIR POLLUTION**

**AND**

**S. 453**

**A BILL TO AUTHORIZE A PROGRAM OF RESEARCH,  
DEVELOPMENT, AND DEMONSTRATION PROJECTS FOR  
ELECTRICALLY POWERED VEHICLES**

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**MARCH 14, 15, 16, 17, AND APRIL 10, 1967**

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# **ELECTRIC VEHICLES AND OTHER ALTERNATIVES TO THE INTERNAL COMBUSTION ENGINE**

**FRIDAY, MARCH 17, 1967**

**U.S. SENATE,  
COMMITTEE ON COMMERCE AND  
THE SUBCOMMITTEE ON AIR AND WATER POLLUTION  
OF THE SENATE PUBLIC WORKS COMMITTEE,  
Washington, D.C.**

The joint committee met at 9:30 a.m. in room 5110, New Senate Office Building, the Honorable Frank J. Lausche presiding.

Senator LAUSCHE. The meeting will come to order.

This morning, the Committee on Commerce and the Air and Water Pollution Subcommittee of the Public Works Committee, will continue hearings on S. 451 and S. 453, bills to promote the development of electric vehicles and other nonpolluting alternatives to the internal combustion engine. This is the fourth day of hearings. The committees have heard three days of testimony from various Government and private witnesses.

There is a disagreement as to whether this research and development should be financed by the Federal Government, or whether it should be done by private industry. Thus far, testimony with respect to whether an alternative should be developed to existing internal combustion engines, has been in agreement, but there is disagreement as to what the alternative might be and when it might be available.

We have heard from witnesses who have brought to us the assurance that there does exist the technology for a useful first generation electric vehicle. These witnesses have given valuable information to the committees.

This morning the first witness is the Honorable Stewart Udall, Secretary of the Department of Interior.

Mr. Secretary, we are prepared to hear what you have to say.

**STATEMENT OF HON. STEWART UDALL, SECRETARY, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY DR. WALTER HIBBARD, DIRECTOR, BUREAU OF MINES**

Secretary UDALL. Thank you very much, Mr. Chairman. I have Dr. Walter Hibbard, Director of the Bureau of Mines, at the table with me.

Mr. Chairmen, I welcome the opportunity to appear before this joint hearing of the Senate Committees on Commerce and Public Works to support the principles embodied in S. 451 and S. 453, bills to promote the development of electric vehicles and other alternatives to the internal combustion engine.

The problem covered in these two bills is an important part of the overall question of environmental quality, a question that is of great and growing concern to all of us. But even considering transportation alone, it doesn't include all of the problems. It doesn't include the question of "tote goats" in remote areas; it doesn't touch the increasing use of hovercraft; it doesn't touch the sonic boom of future supersonic transports. The problem dealt with in these bills is air pollution, but vehicles are at the root of other problems too—problems of noise and safety and convenience and cleanliness—all problems deserving of consideration and solution.

Air pollution is mounting daily, the internal combustion engine is the largest single contributor to this national curse, and if something isn't done about it soon the tailpipe may become a more deadly weapon than the front bumper. The internal combustion engine as we know it today has to go. It has to be supplanted by a nonpolluting internal combustion engine or some alternative. The industry that changed the nation must now itself change. The committees are performing a valuable public service by looking into these problems now.

As Senator Magnuson noted in a recent *Public Power* magazine article, "about half of our total air pollution problem could vanish overnight if every gasoline-powered vehicle could be converted to electric battery power." But that is a mighty big "if," and I see little evidence that the goal is within sight.

Electric cars are a hardy perennial. Hardly a year goes by without a hopeful prediction they are coming back. As reported in the August 13, 1966, issue of the *New Republic* magazine:

Every so often there are reports in the press that electric delivery trucks are to make a comeback, but they never do, and people who jump into this business come close to ruin.

We can hope with Ford official Michael Ference, Jr., that Ford really has achieved a "major breakthrough" with its sodium-sulfur battery demonstrated in the laboratories, but not yet proven by actual performance. And we can applaud and encourage GM's John Caplan, who has said:

We certainly aren't committed to the exclusive use of the internal combustion engine. Actually, here at the General Motors Technical Center, the main thing, our life blood, is change.

The Federal Power Commission's report of February 1967 on "Development of Electrically Powered Vehicles," prepared for the Senate Commerce Committee, points out that technology does exist today to build an electric car of limited range and speed. But the fact remains that technology does not exist today for an electric car with sufficient range and speed to gain widespread public acceptance or at a price low enough for common use. This leads to my first major point; namely, that a research program on non-air-polluting vehicles should include research and development of all alternative means of combating the air pollution and other annoyances and hazards arising from the transportation industry, and not presume that the electric car is the solution. We also recommend a systems approach, from the fuel itself through the engine and the exhaust.

Cleaning up the internal combustion engine may be the most practical alternative, despite the fact that in 50 years of working with the

internal combustion engine the industry has so far only succeeded in adding to our air pollution. Chrysler's Charles Heinen argues that—

It is pointless, and I think actually detrimental to the effort, to be expecting that some magical form of power will take care of the air pollution problem. What we've got to do and what we have to concentrate on is work on the internal combustion engine now.

Standard Oil of New Jersey, in a brochure on "Automotive Emissions Technology" issued in January 1967, foresees 97 percent less hydrocarbon emissions in year 2000 models than in 1960 cars and 90 percent less carbon monoxide and nitrogen oxides emissions. Standard's brochure also states that these levels can be reached very much earlier than the year 2000.

The Bureau of Mines advises me that these appear to be reasonable expectations, but that not all emissions are toxic, and the real problem is to identify those which must be eliminated. The Bureau's engineers at Bartlesville Petroleum Research Center now believe they can outfit an automobile with a system that will eliminate presently known toxic and smog-forming pollutants. Our engineers plan to begin research on this problem as soon as funds are available. The total cost is estimated at \$150,000 and the time required at 9 months. How much will it cost to modify automobiles thus on a mass basis? Obviously not \$150,000 each. But that figure cannot be developed until the vehicle is modified and the delicate balance of parts of the system is achieved that will be required for optimum operation and minimum undesirable exhaust constituents. We hope that, about a year from now, we will be able to cite the cost per vehicle on a mass basis.

An expanded research and development program clearly is called for, and it is necessary for the Federal Government to lead the way. President Johnson stated this point very forcefully in his recent message, "Protecting Our National Heritage," and recommended a 50-percent increase in Federal funds for this purpose. Many private organizations now engaged in research on automobile batteries, battery-powered automobiles, fuels to eliminate pollution from internal combustion engines, or in research on new types of internal combustion engines which will not pollute the atmosphere, have a vested interest in the status quo, and therefore do not have a completely unfettered incentive to solve the problem. Another way to say it, and somebody has to say it, is that, frankly, there has been a lot of foot dragging in the industry and more evidence of lip service than performance. The American public will welcome evidence and I just hope the new optimism of Ford and Standard Oil of New Jersey, for example, produces results.

Federal announcements of future expected standards might further stimulate such work, but so far demonstrable progress has been slow. For this reason, a substantially expanded Federal program appears necessary. The cost of such a program would be only a fraction of the present cost of air pollution to the public.

The New York State Health Department reports air pollution costs every resident of the State an average of \$65 a year—for house painting, car washing, increased laundering and the like—and I have seen estimates of \$15 billion a year for the Nation. Not only is air pollution costing the taxpayers billions of dollars every year, but it is killing

more of us every day, raising our chances of premature death, and increasing our costs for medical care and medicines.

Tougher standards for our Nation's vehicles will help, too, but we must not overregulate before an economic solution to the problems of air pollution is found. Highly restrictive legislation governing use of internal combustion engines within certain areas, for example, would constitute a hardship on large segments of our population and disrupt commerce and industry. I think that, important as controlling air pollution is, the public outcry against this type of regulation would be enormous. Industry may be relying on just such a protest to maintain the status quo. Again, this means that the Government must take the lead in providing a solution in time.

Further, as the President's Science Advisory Committee reported in 1965:

The development of alternative means of mobile energy conversion, suitable for powering automotive transport of all kinds, is not a matter of 1 year or a few years. Thus, if fuel cells, or rechargeable batteries, or other devices are to be developed in time to meet the increased threat, we need to begin now.

Our beginning still has not been bold enough.

The Federal Power Commission is to be commended for its report on electrically powered vehicles. Reports from other students of the problem vary in degree of optimism, but for the sake of this discussion let's accept the FPC assumptions and their projection of total vehicles, electric vehicles, power requirements, cost and the like. The FPC report concludes that, should manufacturers put present technology to use, by about 1975 annual sales of electrically powered cars of short range might approach 2 million vehicles and that by 1985 one of every three cars sold potentially might be electrically powered. Let me add that the FPC report is not optimistic that the full potential will be achieved. If we make progress only at that pace we all may suffocate before the problem of air pollution is solved.

While I have urged that we not presume the electric car is the solution of our air pollution problems, I suggest that we set as a national goal a substantially higher percentage of electric or other nonpolluting vehicles than the FPC report predicts will be in use by 1985. That goal should be at least 50 percent total electric vehicles or other nonpolluting vehicles, by 1985, and 75 percent in urban areas. Such a goal, and visible progress toward it, I believe, will provide the incentive, the competition, the internal combustion people need to really spur them to clean up their engines.

We must better control pollution from electric generating plants while at the same time ending air pollution on the highways. Electric cars will require large amounts of electricity—the FPC estimates between 3,000 and 3,250 kilowatt-hours per year per car, equivalent to about two-thirds the average 1965 electric power consumption per residence in America. Most of our electric power is generated by coal or other fossil fuels which, themselves, emit about 15 percent of the aerial garbage in our Nation's skies at today's level of production. And, remember, electric power production must double every 10 years to keep pace with the Nation's needs for power even without electric cars. The swing is to nuclear-generated power, but fossil fuels will continue to supply a large share of the Nation's electricity, and nuclear



88th Congress }  
2d Session }

COMMITTEE PRINT

# STEPS TOWARD CLEAN AIR

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## REPORT

TO THE

COMMITTEE ON PUBLIC WORKS  
UNITED STATES SENATE

FROM THE

SPECIAL SUBCOMMITTEE ON  
AIR AND WATER POLLUTION



OCTOBER 1964

Printed for use of the Committee on Public Works

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## STEPS TOWARD CLEAN AIR

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### *Introduction*

Last December, the Congress enacted major legislation revamping the role of the Federal Government in air pollution control. The Clean Air Act of 1963 represents a sharp departure from prior legislation in that it created within the Federal Establishment a mechanism for greatly stimulating the national effort to abate and control air pollution. Its provisions were broad, and they ranged into fields which the Federal air pollution effort had not previously entered—abatement authority and financial aid to control programs, to mention only two. Nevertheless, enactment of the Clean Air Act is not in itself the end, but rather a fresh beginning. For there remain several important aspects of the national air pollution problem which require additional attention on the part of the Congress, the executive branch, the cities and States, industrial and other sources of community air pollution, and the American people. This report represents the assessment of a subcommittee which has devoted major attention to surveying the remaining unmet challenges of air pollution and the opportunities that exist to meet and overcome them.

The Special Subcommittee on Air and Water Pollution was created on April 30, 1963, by its parent committee, the Senate Committee on Public Works. At that time, several legislative proposals dealing with air pollution had been referred to the Committee on Public Works and were awaiting consideration. The chairman of the Public Works Committee instructed the subcommittee to “extensively explore” the problem of air pollution in all its ramifications—sources, nature, effects, and control—and to determine the most beneficial legislative remedies. The subcommittee was empowered to hold hearings, to conduct studies, to recommend amendments to existing legislation, to develop new legislative proposals, and to prepare reports of its findings and conclusions.

Initially, it was the subcommittee’s plan to hold extensive hearings across the Nation prior to the consideration of any legislation so that the members of the subcommittee could explore the air pollution problem in the greatest possible depth, greater in fact than that dictated by the scope of the several bills pending before the subcommittee. The members wished to acquire a fund of information sufficient to enable them to consider wisely not only the merits of the pending bills but also the need for legislation that would be possibly much more responsive to the problems than that already introduced. As a first factfinding step, the subcommittee instructed its staff to prepare a report on the problems of air pollution, its causes and effects, the history of Federal, State, and local governmental control activity, and the specific areas which seemed most urgently to demand attention. This report, “A Study of Pollution—Air,” was issued in September 1963.

This staff study documented the magnitude of the national air pollution problem and made clear the fact that immediate consideration of the pending legislation was highly desirable. It was obvious that early action was called for if Congress was to enact legislation to cope with the problem within that year.

The subcommittee therefore decided to divide its work into two phases: (1) immediate consideration of the pending legislative proposals; and (2) after completing action on that legislation, investigation of those aspects of the air pollution problem not fully covered by the pending bills. In September 1963, legislative hearings were held; a bill was subsequently reported out and passed by the Senate. Differences between Senate and House versions were resolved, and on December 17, 1963, the President signed Public Law 88-206—the Clean Air Act.

Major provisions of the Clean Air Act are described in appendix I of this report. Briefly, the act authorized continuation and substantial augmentation of the Federal air pollution program, carried on by the Department of Health, Education, and Welfare since 1955. The act, however, went far beyond prior legislative authority by assigning to the Department several new responsibilities in the area of air pollution control. It granted the Secretary of Health, Education, and Welfare specific abatement powers, similar to those he already had in the area of water pollution control. It established, for the first time, a program of grant assistance to State, regional, and municipal air pollution control agencies to stimulate State and municipal governments to assume fully their responsibility for the control of air pollution at its source, a responsibility which the subcommittee staff report showed the cities and States of the country were not adequately meeting.

Other provisions of the Clean Air Act directed the Secretary of Health, Education, and Welfare to develop and promulgate criteria of air quality for the guidance of control agencies and other governmental bodies desiring to establish enforceable standards of air quality and air pollution emission limitations; to form a joint industry-Government technical committee to explore the problem of motor vehicle air pollution and recommend steps toward its solution; to conduct studies and investigations leading to the development of practical, low-cost methods of removing sulfur from fuels in order to reduce the amount of atmospheric sulfurous pollution caused by the burning of sulfur-containing coal and oil; to develop prototype devices and procedures for air pollution control; and to establish a procedure for the regulation of air pollution discharged from buildings and other facilities under Federal jurisdiction.

Following adoption of the Clean Air Act, the subcommittee turned to a more detailed inquiry into the complexities of the national air pollution problem, devoting its attention chiefly to facets such as vehicular pollution and the development of effective regional approaches to control, which evidently presented the greatest impediments to comprehensive air pollution control throughout the Nation. On January 27, 1964, the subcommittee initiated in Los Angeles a series of field hearings to gather as much on-the-spot information as possible. In addition to Los Angeles, hearings were held in Denver, Chicago, Boston, New York, and Tampa to gather, at first hand, a fund of information on the kinds of problems typically affecting



representative communities in various parts of the country. Witnesses who provided testimony at these hearings included governmental air pollution control officials, Governors, mayors, municipal and State health officers, representatives of industry, and spokesmen for citizens' organizations active in the effort to control air pollution. This series of hearings was concluded in late February. In June, the subcommittee again held hearings in Washington, taking testimony over a 5-day period on several specific aspects of the air pollution problem—motor vehicles, pollution control equipment, solid waste disposal, emissions from jet aircraft engines and from the testing of missile and rocket fuels, the control of sulfur emissions associated with the burning of coal and oil, and the need for new Federal research and development facilities to carry out the expanded programs authorized under the Clean Air Act. Testimony was received from Federal officials, from representatives of the several industrial fields directly concerned, and from a number of expert witnesses, consultants, and members of university faculties.

This report is based on the conclusions formed by subcommittee members growing out of an analysis of more than 1,400 printed pages of testimony and supporting documents. The members of the subcommittee have arrived at a set of recommendations which they feel are amply supported by the massive fund of information developed over the past year. Following is a brief summary of the subcommittee's findings and its specific recommendations. The bulk of this report consists of more detailed discussions of the seven specific areas for which recommendations have been offered.

### *Summary*

In all of the hearings held since the adoption of the Clean Air Act of 1963, automotive exhaust was cited as responsible for some 50 percent of the national air pollution problem. It is, in many respects, the most important and critical source of air pollution, and it is, beyond question, increasing in seriousness despite preliminary and isolated efforts to control it. One reason for the automobile's extreme importance in the overall national air pollution problem is its omnipresence. Automobiles are found in every populated area, whether industrialized or recreational, urban or suburban. The Division of Air Pollution of the Public Health Service has estimated that any place inhabited by 50,000 or more persons will have enough motor vehicles to create the potential for an air pollution problem. But motor vehicles, increasing though they are as a presently uncontrolled source of air pollution, have not far outstripped industry and waste disposal as the foremost contributors to the burden of pollution in the air. In major metropolitan areas with their confounding array of air pollution sources and in small mill towns dominated by a single, overwhelming air pollution source, the factory, powerplant, or incinerator smokestack is still the dominant landmark on the air pollution horizon.

The Nation is adding new and more complex air pollution sources to its highways and landscape faster than it is bringing them under control. This is true despite the fact that equipment and technological skills capable of controlling most of the major sources of air pollution, moving and stationary, are available today. This is not meant to imply that additional research is not vital. On the contrary, research

is urgently needed to find ways of controlling or preventing those sources of air pollution which now defy solution, and it is also needed to make improvements upon the sometimes crude means we rely on today to reduce emissions of solid and gaseous pollutants from industrial and other sources. Research, furthermore, cannot be confined to a quest for ways to plug up existing sources; it can as fruitfully or even more fruitfully be focused on the discovery or development of preventive measures.

The mandate in the Clean Air Act to seek practical, low-cost methods of removing sulfur from fuels before they are burned is an example of research in this important area. The cities and States cannot be expected to assume the major responsibility for this research and development activity. Excepting only California and Los Angeles County, they have not equipped themselves for such effort but have instead logically looked to the Federal Government for leadership, for new information, and for the maintenance of a truly national research and development program. This the Division of Air Pollution of the Public Health Service has provided for the past 9 years and will be able to continue in the years to come under the authority of the Clean Air Act. Within the Department of Health, Education, and Welfare the act places new and expanded responsibilities on the Division's research and development capabilities, and it is evident that the Division will have to be provided additional facilities, resources, and manpower if it is to meet the increased demands that the Clean Air Act places upon it.

Hand in hand with research must go the application of available and proven technology for the abatement and control of air pollution. No more obvious and disgraceful illustration of the need for applied technology can be found than the appalling state in which the Nation's waste disposal practices exist. Municipal, domestic, and industrial solid wastes are adding needlessly to the national air pollution problem simply because well-recognized methods of disposing of them cleanly and safely are all but totally neglected. To be sure, the aggregate cost of solid waste disposal is enormous, but the blight, the illness, the property destruction, and the environmental degradation produced by a smoldering garbage dump or a billowing, foul-smelling incinerator are far more costly to society. The Federal Government has both an opportunity and an obligation to help remedy this situation by employing its technical and financial resources to aid communities in the acquisition of proper disposal facilities.

In the control of air pollution, as indeed in most areas of human endeavor where social and technological problems merge, society is faced with the sometimes difficult task of balancing the rewards of progress with its penalties. The great industrial expansion of the last century has been achieved not without its price, and the unwanted and sometimes devastating effects of air pollution are a part of that price. We have reaped a huge harvest from the mineral resources of the earth, from its iron, coal, and petroleum; but we have also harvested vast quantities of potentially dangerous by-products. In the case of fossil fuels, we have had to take, and burn, the sulfur with the coal or oil. And in so doing, we have dumped into our air resource the sulfur compounds which endanger our health and destroy our property. Decades passed before serious attention was given to the proposition that sulfurous air pollution might be an unnecessarily

high price to pay for the riches that coal and oil had helped produce. Now, finally, there is reason to believe that we are ready to give the problem the attention it has long deserved, and indeed needed to solve it. Methods of taking sulfur out of fuel have been developed; methods of trapping sulfur gases from the emissions of electric generating stations have been developed, even to the point where the sulfur can be transformed into marketable sulfuric acid. The need now is to further perfect such techniques and to put them to use.

Collaboration between government and industry can be as beneficial to mankind, whether applied to an old problem or to a new one, such as the emissions from jet aircraft and the testing of missile and rocket fuels. Small by comparison, this quite new area of concern in air pollution presents an opportunity to conquer a problem before it grows to major proportions. The Federal Government and the segments of industry which are closely associated with Federal activities in the missile and rocket field, especially defense and space contractors, should pool their knowledge in the interest of minimizing or eliminating entirely the hazardous emissions being produced by the combustion of novel chemical fuels. Similarly, the operators of jet aircraft, aircraft engine manufacturers, and Federal aviation authorities have a compelling opportunity to correct now an air pollution problem which must be expected to grow as we move into the second decade of the expanding jet age.

These illustrations of the great benefits that would accrue to joint industry-government efforts in the area of air pollution point to a continuing responsibility of the Federal air pollution program. This is the obligation to provide technical aid to industry to help in planning and implementing measures for the abatement and control of air pollution.

Finally, it should be pointed out that the subcommittee is aware of the need for uniformity in the legal basis for air pollution control throughout the country. It is patently unjust for a government on one side of a political boundary line to permit levels of air pollution in its airspace far greater than those tolerated on the other side. Conversely, it is impractical for one jurisdiction to strive for the attainment of high standards of air quality if its adjoining neighbor, which will inevitably share the same air supply, does little or nothing to prevent wholesale pollution of the atmosphere. What is needed is a set of uniform laws and ordinances, which can be developed by the Department of Health, Education, and Welfare and recommended to the States and cities of the Nation, so that they can at least have the benefit of the best judgment on matters pertaining to regional air resource management.

These are the areas in which the subcommittee feels additional action is required and makes the following recommendations:

### ***Recommendations***

That consideration be given to—

1. Legislation which would provide a minimum national standard limiting exhaust emissions of air pollutants from gasoline-powered motor vehicles.

2. Legislation which would require the Secretary of Health, Education, and Welfare to establish criteria for allowable exhaust emissions from diesel-powered vehicles.

3. Legislation which would authorize the establishment of a program of grants for the construction of community solid waste disposal facilities.

4. Legislation which would authorize the establishment of a Federal Air Pollution Control Laboratory.

5. Legislation which would authorize the establishment of a technical committee, composed of representatives of the Department of Health, Education, and Welfare, the coal and petroleum industries, and the electric power industry, and the Federal Power Commission to effect a program of development of improved, low-cost techniques leading to the reduction of the emissions of oxides of sulfur produced by the combustion of sulfur-containing fuels.

It is further recommended that—

6. The Secretary of Health, Education, and Welfare prepare suggested State laws and regulations and municipal ordinances and codes which would encourage uniform control of air pollution within "air sheds," particularly where the problems are interstate in nature.

7. The President call a conference, made up of representatives of the Department of Health, Education, and Welfare, the Department of Defense, FAA, NASA, the Atomic Energy Commission, the Department of Commerce, and affected industries, to review rules, regulations and efforts to avoid air pollution resulting from jet aircraft, rocket and missile testing, and experimental fuel use. The conference should devise an effective means of coordination and mutual support to eliminate and avoid air pollution in these areas and should meet periodically to review Government activity.

### ***Automobiles***

Emissions of automobile exhaust constitute a major proportion of the community air pollution problem in all large cities in the Nation. Equipment and engineering modifications have been developed and tested which will reduce substantially the amounts of two major components of automotive exhaust—hydrocarbons and carbon monoxide. The automotive industry has agreed to produce cars beginning with the 1966 model year for sale in California which will be equipped with exhaust pollution control devices capable of reducing emissions to the levels set by California law. The industry does not plan, however, to make such vehicles available for sale other than in California, despite the documented fact that vehicular pollution is a serious and growing problem in all other parts of the country.

It is therefore recommended that legislation be considered which would require that, on or before 1 year after passage of such legislation, all gasoline-powered motor vehicles manufactured and introduced into interstate commerce or imported into the United States be required to meet standards where emissions of hydrocarbons and carbon monoxide are no greater than those the industry has agreed to meet in California and that rules and regulations be promulgated to insure proper operation and maintenance of the exhaust control equipment installed on such vehicles.

Because oxides of nitrogen may be increased in automotive exhaust as certain other components are reduced, it is recommended that the Secretary of Health, Education, and Welfare initiate or expand

research efforts aimed at developing methods and equipment for the control of oxides of nitrogen.

In view of the fact that about 15 percent of the hydrocarbon losses from motor vehicles come from the carburetor and fuel tank, and that effective means of preventing such losses are not available, it is further recommended that the Secretary of Health, Education, and Welfare undertake, with the assistance of the technical committee authorized under section 6 of Public Law 88-206, a study of ways and means of correcting this source of pollution and report his findings to Congress by one year after passage of this legislation.

Automobiles manufactured for sale in the United States, beginning with the 1963 model year have been factory-equipped with crankcase ventilation devices to prevent so-called blowby emissions. It is recommended that foreign cars imported into the United States be required to include similar equipment and that the Secretary of Health, Education, and Welfare develop and promulgate rules and regulations for the performance and maintenance of such devices.

Of primary importance to the subcommittee was the problem of automotive air pollution. The hearings demonstrated that the potential exists for a dramatic reduction in the air pollution problem created by motor vehicles. Industrial spokesmen and others advised the subcommittee that techniques for the control of motor vehicle exhaust and, specifically, for the reduction in the amount of pollutants which lead to the formation of photochemical smog, have passed the research stage and are now capable of large scale application on new, and potentially on used, automobiles in this country.

Since the industry has stated it can meet the standards set by California, and since California, with its severe problem, has standards which will materially improve conditions, it would seem that the same standards could be reasonably applied nationwide. Since the industry, in testimony as cited herein, advised it would not voluntarily provide automobiles meeting California's standards on a nationwide basis it is up to Congress to act.

Automobiles, trucks, and buses, which number approximately 82,500,000 in the United States, are the most numerous and widespread contributors to the national air pollution problems. In testimony and other information presented to the subcommittee by industrial representatives, governmental officials, and research workers, the major importance of motor vehicles as a vast, uncontrolled source of air pollution has been clearly demonstrated. At hearings in Los Angeles in January 1964, the subcommittee accumulated information both on the magnitude of the automobile air pollution, or smog problem, in Los Angeles and on the efforts being made in the State of California to deal effectively with this problem.

Gov. Edmund G. Brown of California reported to the subcommittee that—

automobiles in the Los Angeles basin burn up some 7 million gallons of gasoline every day. And in the combustion process they pollute the air with 1,625 tons of hydrocarbons—the principal source of smog; 485 tons of oxides of nitrogen; and another 8,115 tons of carbon monoxide.

When these figures based on the Los Angeles experience are projected for the entire Nation—where some 65 billion gallons of fuel are burned each year—the quantities of pollutants produced annually by motor



vehicles is seen to be enormous—more than 14 million tons of hydrocarbons, more than 4 million tons of oxides of nitrogen; and over 75 million tons of carbon monoxide.

The State of California and particularly Los Angeles are seriously plagued by automotive smog, but the subcommittee has reached the inescapable conclusion that this problem is not confined to one city or State. Governor Brown expressed the view that automotive smog is a national problem. And Warren M. Dorn, member of the Air Pollution Control Board, Los Angeles County Board of Supervisors, stated:

The automobile, which is responsible for the emission to the Los Angeles atmosphere of 80 percent of the smog-causing hydrocarbons and 50 percent of the smog-causing oxides of nitrogen, is uniquely a creature of interstate commerce. Its raw materials, its subassemblies, its finished products move in interstate commerce. Upon the well-being of the industry that produces it rests a good portion of the well-being of our economy. Its use has remade the appearance and the social structure of the United States. The waste products arising from its use now threaten the health, welfare, and comfort of people in communities from coast to coast.

The air pollution control officer for Los Angeles County, Mr. S. Smith Griswold, also attested to the national significance of the smog problem.

Evidence now available would indicate that this community is not alone in this plight. Although we apparently were the first to reach and pass the "smog threshold," other communities now also are beginning to suffer acutely from this problem. Our problem, therefore, may no longer be viewed as unique, but rather as one shared in common with all other urban areas of the Nation, areas which presently contain more than 70 percent of our total national population.

This point of view was reiterated and substantiated in testimony presented in Washington by Vernon G. MacKenzie, Chief of the Division of Air Pollution, Public Health Service, U.S. Department of Health, Education, and Welfare. Mr. MacKenzie explained that the factors which combine to produce smog in Los Angeles are present to a degree in virtually every populated part of the country. These factors are motor vehicles, meteorological conditions which restrict the dilution of pollutants, and photochemical reactions which convert hydrocarbons and oxides of nitrogen into eye-irritating and plant-damaging secondary pollutants. Mr. MacKenzie pointed out that, with respect to concentration of motor vehicles, Los Angeles is surpassed by many other communities. The density of automobiles per square mile in Los Angeles in 1962 was 1,350. The corresponding figures for other major American cities were: Chicago, 1,541; Detroit, 1,580; New York City, 2,220; Philadelphia, 3,730; and Washington, D.C., 4,100. Mr. MacKenzie also presented data demonstrating that meteorological conditions which tend to entrap pollutants, and photochemical reactions which convert automotive exhausts into smog have been reported in many parts of the country and are, in fact, the rule rather than the exception. Mr. MacKenzie quoted the following from the Yearbook of Agriculture, published in 1963 by the U.S. Department of Agriculture:

Los Angeles no longer has, if it ever had, a monopoly on photochemical smog. The characteristic symptoms on plants have been found in almost every metropolitan area of the country \* \* \* the entire coastal area from roughly Washington, D.C., to Boston has come to rival southern California for extent, severity, and economic loss to agriculture because of photochemical smog. The occasional appearance of smog symptoms on vegetation of other sections is reason for serious concern.

During the hearings in Denver, the subcommittee was advised by Mayor Thomas G. Currigan that—

The rate of increase of car and truck registration has been greater than the population growth, and is expected to increase from over 400,000 in 1960, to over 800,000 in 1970 \* \* \* these growth factors will add to the air pollutants to be dissipated by the already overburdened air over the metropolitan area.

The matter of air pollution from automotive sources, it was further brought out in discussions between Senator Muskie and Robert Haver, chairman, Colorado Air Pollution Advisory Committee and Dr. Richard Reese, another committee member, follows:

Senator MUSKIE. You say about 40 percent of your air pollution is due to industrial sources and 40 percent from motor vehicles?

Mr. HAVER. That is correct.

Dr. REESE. We have done an inventory in Denver which showed roughly 40 percent due to automobile, maybe about 30 to industries, and 30 to domestic sources—heating, backyard incinerators, dumps, and so forth.

Dr. Alfred E. Frechette, commissioner, Massachusetts Department of Public Health, touched on the problem of air pollution when he stated:

While we have no specific data as yet on the relative contribution of automobiles to air pollution in the Boston area, we do know that gasoline consumption and vehicle density in the Boston area is comparable to other metropolitan areas in the county and we, therefore, must assume that the automobile constitutes a very important source of air pollution. The provision of the Clean Air Act supporting further research in this area is most welcome.

Mr. Genairo G. Constantino, chief, Division of Air Pollution Control and Mechanical Equipment and Installations, city of Providence, R.I., also indicated the presence of pollutants which emit from automobiles when he said:

For example, the U.S. Public Health Service pilot study showed evidence of the occurrence in Providence of the Los Angeles-type smog—especially during the summer when the oxidant levels rose to as high as 0.3 parts per million. Accordingly, in addition to continuing participation in the National Air Sampling Network the Public Health Service report recommended a long-term air pollution monitoring program in order to define not only the potential danger to public health, but also to delineate the problem of the gaseous pollutants more fully, to assess the need for effecting various other control activities, and to follow trends in air pollution levels—all being necessary if we are to carry out this responsibility to the citizens of Providence.

Mayor Robert Wagner, of New York, in discussing the air pollution problem originating from all sources indicated the contributions from automobiles and buses when he said:

Our problem here in the New York metropolitan area can be divided into two categories: First, there is pollution from smokestacks and chimneys, from coal and fuel oil used to produce heat and power, and from incinerators. Second, there are traffic fumes.

Every day, 2 million automobiles and about 6,500 diesel buses use the streets of New York. While the diesels may be more offensive, and may cause headaches and nausea, the deadlier gases come from the gasoline engines. We have required the use of fume-repressing devices on all city-owned vehicles since 1961, and the automobile industry is now installing them on all new cars.

This, however, does not check the fumes from the older cars, those manufactured before 1963, which are operated in the city; nor does it check the diesel fumes from trucks and buses, since diesel engines are not adaptable to fume-repressing devices; nor have we or anyone else been able to solve the problem of what to do about tail-pipe exhaust from automobiles, since the device that I have referred to only checks emissions from the crankcase and not from the exhaust pipes.

In his statement before the subcommittee in New York City, Dr. Leonard Greenburg, professor of preventive and environmental medi-

cine, Albert Einstein College of Medicine, and the first commissioner of air pollution control in New York City and now a member of the New York State Board of Air Pollution Control, stated:

It is well known that at this very moment we do not possess approved control devices for the automobile exhaust tailpipe. True, the Los Angeles Control District, the State of California, and the U.S. Public Health Service have been working on this problem for a long time and at great cost; nevertheless, we still do not have an approved device for controlling the hydrocarbon vapors discharged in the automobile exhaust gas stream. Hopefully this will be achieved in the not too distant future. Then, and only then, will it be possible to control one important portion of the total problem.

In view of the evidence indicating that automotive air pollution is a problem of national concern and scope, it might seem surprising that California is the only State which has undertaken a program aimed at solving this problem. The explanation may be found in the fact that Los Angeles was the first community to recognize the role of motor vehicles in producing smog and that adverse meteorological and topographical conditions there tended to make the problem acute and alarming several years before other cities had any indication of their burgeoning smog problems.

Los Angeles County has undertaken the most comprehensive and effective air pollution control program in history, and its efforts have led to the imposition of stringent controls on stationary sources of pollutants, both industrial and domestic. Yet despite the dramatic reduction in the quantities of pollutants being discharged into the air of Los Angeles, the smog problem persisted because its primary source—the automobile—remained uncontrolled. It is still uncontrolled, but the State of California, through its motor vehicle pollution control board, has undertaken a program aimed at developing and imposing control techniques on virtually all automobiles registered in the State.

The California program was described to the subcommittee during its hearings in Los Angeles by several State officials, including Governor Brown and Mr. J. B. Askew, chairman of the California Motor Vehicle Pollution Control Board. These witnesses, as well as industrial representatives who testified in Washington, explained that since 1961 new cars registered in California have been required by law to be equipped with any of a number of State-approved "blowby" devices which control the release of pollutants from the crankcase by returning these fumes to the engine for reburning. Five such devices are available for installation on used cars back to the 1950 model year. By the end of 1965 California authorities expect to have crankcase devices on 85 percent of registered vehicles in the State of California.

In speaking of the "blowby" control, Mr. Harry A. Williams of the Automobile Manufacturers Association, stated:

It was learned in 1959 that unburned fuel mixtures which escape downward past the piston rings into the crankcase were resulting in hydrocarbon emissions to the atmosphere through the road draft tube in amounts in the order of 30 to 40 percent of the total emissions from a given vehicle \* \* \*. On its own initiative, the industry introduced these (blowby) devices on vehicles offered in California at the beginning of 1961 model sales. After a year's experience with these in the hands of a relatively large number of California users, the industry announced in December of 1961 that crankcase ventilation systems would be installed on all 1963 models of American-made automobiles sold in the United States.

UNITED STATES



OF AMERICA

# Congressional Record

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I thank my colleagues for their support of this much-needed bill.●

### LABOR RIGHTS

● Mr. LAUTENBERG. Mr. President, when the Congress reconvenes next year, one item high on the agenda should be legislation to prohibit the hiring of permanent replacements of striking workers. Unfortunately, the Congress has been unable this session to take up S. 2112, introduced by my colleague from Ohio, the distinguished chairman of the Labor Subcommittee, Mr. METZENBAUM, to bar the hiring of permanent replacements. I was pleased to be a cosponsor of this important legislation, which would restore balance to the relationship between organized workers and management.

The legislation would overturn the permanent strike replacement doctrine first stated in the MacKay Radio Co. case in 1938. The MacKay doctrine has been interpreted to grant employers authority to hire permanent replacements while workers are on strike. Especially since President Reagan permanently replaced striking air traffic controllers, more and more private sector employers consider it acceptable to permanently replace workers who exercise their right to strike. I disagree.

At risk is a basic goal of the National Labor Relations Act—to protect employees' right to pursue their interests collectively, including the right to strike. The Act clearly states that employees do not lose their status as employees when their "work has ceased as a consequence of, or in connection with, any current labor dispute."

Mr. President, an employer who cannot fire a striking worker, should not be able to permanently replace a striking worker. The result is the same—the employee loses his or her job because of exercising the right to strike.

Legislation in this area is long overdue—not just for the sake of striking workers, but for the sake of America's economic competitiveness. America's best workers are those who feel good about their job, who know they're appreciated, and are part of a team. America's best managers recognize that.

Those managers who would throw away the skills, the know-how and the experience of a veteran work force jeopardize not only the future of their firm, but the ability of America to compete armed with the smarts and the muscle of its best workers.

When the Congress reconvenes, I will work for prompt passage of legislation to ban the hiring of permanent strike replacement workers.●

### PROTECTING WORKER SAFETY

● Mr. LAUTENBERG. Mr. President, the budget reconciliation bill recently passed by the Congress includes provisions that will strengthen civil penalties for violators of worker safety standards. Specifically, penalties for violations of OSHA will be increased by 7 times.

I have been deeply interested in worker safety. I introduced free-standing legislation that would have tripled the maximum amount of these sanctions. So I would like to briefly discuss the need to strengthen these penalties.

Mr. President, for me, worker safety is a personal issue. When I was still a teenager, my father died. He was 43 years old. He died of cancer.

We never knew exactly what caused the cancer, Mr. President. But we thought about it a lot. He had been a healthy, active man. He did not smoke. He exercised. He was still young.

But my father also worked in a silk mill.

Now I cannot say that he died because of that silk mill. But he was not the first textile worker to die of cancer. Nor, unfortunately, was he the last.

Mr. President, the reality of occupational disease involves real pain. And real hardship for those left behind.

OSHA was enacted in 1970 to avoid that kind of hardship, by assuring safe and healthful working conditions for all working Americans. Yet since OSHA was enacted, more than 100,000 workers have lost their lives because of unsafe working conditions. Each year, an estimated 7,000 to 11,000 more are killed on the job.

Mr. President, civil penalties can provide a significant deterrent to those who would violate worker safety and health standards. They hit law-breaking businesses where it hurts—on the bottom line. And unlike criminal sanctions, which can be imposed only with the cooperation of a reluctant and overburdened Justice Department, civil penalties can be imposed directly by the Labor Department.

However, as inflation erodes the real value of civil penalties, it erodes deterrent effect as well.

Since 1970, when OSHA was established, the Consumer Price Index has increased by over 230 percent. Yet maximum penalty levels remain unchanged. As a result, their real impact on violators—and prospective violators—deteriorated to less than one-third of what Congress originally intended.

Mr. President, maintaining the deterrent effect of OSHA penalties is important to protect worker safety. But it is also important for honest, law-abiding businesses. The fact is, meeting OSHA's requirements for a safe workplace often involves a substantial investment. And honest businesses

make those investments. Sometimes, though, their competitors do not. And with weak sanctions, they get away with it.

Mr. President, as a society, we have an obligation to the honest business, to make sure that its competitors cannot exploit weakened sanctions to gain an unfair competitive advantage. And that requires an effort to ensure that penalties are not eroded substantially by inflation.

So, Mr. President, it is time to bring OSHA penalties up to date. Doing so will strengthen protections for our Nation's workers, ensure fairness for honest businesses, and reduce the budget deficit.●

### CLEAN AIR ACT AMENDMENTS

● Mr. MOYNIHAN. Mr. President, I note that both the House and Senate versions of S. 1630, the Clean Air Act Amendments of 1990 rejected proposals to expand the EPA's authority to allow for emissions averaging for motor vehicles.

In our version of the bill, the Senate specifically prohibited averaging, but provided an exemption from this prohibition for averaging programs relating to heavy duty engines and vehicles. In the conference on S. 1630, the Senate agreed to adopt most of the House bill's legislative language in title II, regarding emissions from mobile sources. In agreeing to adopt House provisions relating to emissions averaging—that is, to be silent on the subject altogether—the conferees were mindful of the decision in the case *NRDC v. Thomas*, 805 F.2d 410 (D.C. Cir. 1986) regarding proposed or promulgated EPA programs for emissions averaging for heavy duty engines.

In choosing to be silent on the issue of averaging, there was no intent by the conferees to affect the disposition of this subject at EPA or in the courts. A lack of legislative language in the conference report on S. 1630 regarding emissions averaging should only be viewed as allowing previously existing law to remain in effect.●

### CONFERENCE REPORT ON THE NATIONAL AFFORDABLE HOUSING ACT, S. 566

● Mr. LIEBERMAN. Mr. President, I am pleased to support the conference report on the 1990 omnibus housing legislation. We must address the myriad of housing problems—homelessness, lack of affordable housing, the inability of working Americans to purchase homes—currently facing this country. This comprehensive legislation is an important step toward confronting these problems. I applaud the work done by the Senate conferees.

I am particularly pleased that an amendment I sponsored was retained





United States  
of America

# Congressional Record

PROCEEDINGS AND DEBATES OF THE 101<sup>st</sup> CONGRESS, SECOND SESSION

## HOUSE OF REPRESENTATIVES—Friday, October 26, 1990

The House met at 10 a.m.

The Chaplain, Rev. James David Ford, D.D., offered the following prayer:

Remind us, O God, that we brought nothing into this world and surely we will bring nothing away. Let us so live our lives and see our tasks knowing that we do not own the wealth of the world, but rather are but caretakers of the riches of the land. Encourage us, O God, to be honest stewards of the resources of our Nation so we will preserve with integrity the abundance of the gifts You have given for all the generations to come. In Your name, we pray. Amen.

### THE JOURNAL

The SPEAKER. The Chair has examined the Journal of the last day's proceedings and announces to the House his approval thereof.

Pursuant to clause 1, rule I, the Journal stands approved.

### PLEDGE OF ALLEGIANCE

The SPEAKER. Will the gentleman from Georgia [Mr. JONES] please come forward and lead the House in the Pledge of Allegiance?

Mr. JONES of Georgia led the Pledge of Allegiance as follows:

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

### MESSAGE FROM THE PRESIDENT

A message in writing from the President of the United States was communicated to the House by Mr. McCathran, one of his secretaries, who also informed the House that on the following dates the President approved and signed bills and joint resolutions of the House of the following titles:

On August 3, 1990:

H.J. Res. 577. Joint resolution designating the month of November 1990 as "National American Indian Heritage Month."

On August 6, 1990:

H.R. 2843. An act to establish the Tumacacori National Historical Park in the State of Arizona.

On August 7, 1990:

H.J. Res. 625. Joint resolution designating August 6, 1990, as "Voting Rights Celebration Day."

On August 9, 1990:

H.J. Res. 548. Joint resolution designating the week of August 19 through 25, 1990 as "National Agricultural Research Week";

H.R. 5350. An act to provide for a temporary increase in the public debt limit; and

H.R. 5432. An act to extend the expiration date of the Defense Production Act of 1950.

On August 10, 1990:

H.J. Res. 467. Joint resolution designating September 21, 1990, as "National POW/MIA Recognition Day", and recognizing the National League of Families POW/MIA flag;

H.R. 293. An act to direct the completion of the research recommended by the Technical Study Group on Cigarette and Little Cigar Fire Safety and to provide for an assessment of the practicality of a cigarette fire safety performance standard;

H.R. 3048. An act to designate the Agricultural Research Service, United States Department of Agriculture, animal health research building in Clay Center, Nebraska, as the "Virginia D. Smith Animal Health Research Laboratory"; and

H.R. 4790. An act to amend the Public Health Service Act to establish a program of grants for the detection and control of breast and cervical cancer.

On August 14, 1990:

H.R. 4872. An act to establish the National Advisory Council on the Public Service.

On August 15, 1990:

H.J. Res. 515. Joint resolution designating the week beginning September 16, 1990, as "National Give Kids a Fighting Chance Week";

H.J. Res. 554. Joint resolution designating January 6, 1991 through January 12, 1991 as "National Law Enforcement Training Week";

H.J. Res. 627. Joint resolution designating Labor Day weekend, September 1 through September 3, 1990, as "National Drive for Life Weekend";

H.R. 76. An act to amend the Wild and Scenic Rivers Act to study the eligibility of the St. Marys River in the States of Florida and Georgia for potential addition to the wild and scenic rivers system;

H.R. 1159. An act to amend the National Trails System Act by designating the Juan

Bautista de Anza National Historic Trail, and other purposes;

H.R. 1199. An act to amend title 38, United States Code, to establish a system of competitive pay for nurses employed by the Department of Veterans Affairs, to authorize the Secretary of Veterans Affairs to make such system applicable to certain other health-care personnel, to make certain improvements in veterans' health and education programs, and for other purposes;

H.R. 4035. An act to designate the Federal building located at 777 Sonoma Avenue in Santa Rosa, California, as the "John F. Shea Federal Building";

H.R. 4273. An act to amend the Public Health Service act to extend the program of grants for preventive health services with respect to tuberculosis, and for other purposes;

H.R. 4314. An act to implement the Inter-American Convention on International Commercial Arbitration; and

H.R. 5131. An act to amend the Federal Aviation Act of 1958 to extend the civil penalty assessment demonstration program, and for other purposes.

On August 17, 1990:

H.R. 3086. An act to amend title 5, United States Code, to grant appeal rights to members of the excepted service affected by adverse personnel actions, and for other purposes; and

H.R. 3248. An act to revise the boundary of Gettysburg National Military Park in the Commonwealth of Pennsylvania, and for other purposes.

On August 18, 1990:

H.R. 498. An act to clarify and strengthen the authority for certain Department of the Interior law enforcement services, activities, and officers in Indian country, and for other purposes; and

H.R. 1465. An act to establish limitations on liability for damages resulting from oil pollution, to establish a fund for the payment of compensation for such damages, and for other purposes.

On August 20, 1990:

H.R. 1594. An act to make miscellaneous and technical changes to various trade laws.

On September 20, 1990:

H.J. Res. 568. Joint resolution designating the week beginning September 16, 1990, as "Emergency Medical Services Week."

On September 25, 1990:

H.R. 7. An act to amend the Carl D. Perkins Vocational Education Act to improve the provision of services under such Act and to extend the authorities contained in such Act through the fiscal year 1995, and for other purposes; and

□ This symbol represents the time of day during the House proceedings, e.g., □ 1407 is 2:07 p.m.

Matter set in this typeface indicates words inserted or appended, rather than spoken, by a Member of the House on the floor.

34485



Mere omissions are not criminally punishable under the Clean Air Act as amended. For criminal sanctions to apply to omissions of information or other failures to act, a person must have received actual notice of the requirement in question. Actual notice can be established by competent evidence such as an agency letter, notice, or order to the person specifying the information requirement and specifically requesting the required information.

Unlike the civil and administrative sanctions amended by these amendments, the criminal sanctions do not extend to past violations. Criminal sanctions are available only for present, ongoing actions.

#### TITLE VII—CITIZEN SUITS

Citizen suits are generally inappropriate for past violations. The conferees narrowed the House provision which required only an allegation of repeated or continuous past violations. The conferees agreed that citizens should be required to present competent evidence of past violations and that the evidence demonstrate repeated violations.

By deleting "continuous," the conferees intend to exclude instances where violations were merely repeated on successive days. The evidence must demonstrate that the past violations were frequent, that the alleged violator habitually ignored applicable requirements and that the agency did not adequately enforce the law.

The general refusal of the conferees to adopt the Senate citizens suit provisions reflects the judgment of the conferees that the House provisions struck a far more sensible balance of the interests involved than either the Senate provisions or current law. EPA and the courts should move rapidly to implement the agreed provisions as fully as possible.

Mr. MADIGAN. Mr. Speaker, two provisions of the bill with which I have a great deal of interest, and worked vigorously in conference to resolve, are the reformulated gasoline and oxygenated gasoline provisions. I am concerned that a statement concerning these provisions made earlier, while presumably made to enhance legislative history, does not reflect my understanding of these provisions, nor, do I believe, the consensus of the conference committee.

I am specifically concerned that the statement attempts to place burdens on EPA which were not intended and should not be implied. For example, while the Administrator is to consider the costs associated with reducing VOC's and toxics in gasoline, the conference committee never considered a cost cap of 4 to 6 cents per gallon as has been suggested. There are many different means of reducing pollutants in gasoline, some far more costly than others. Imposing a cost cap would only encourage refiners to pursue the most expensive reformulating options as a means of opting out of the program entirely.

I believe that the presence of the reformulated gasoline and oxygenated gasoline provisions in the bill are a clear signal that Congress intends for the oil industry to do its part in cleaning up the air and that providing cleaner gasoline is one of the most cost-effective means of reducing air pollution.

In order that there be no misunderstanding regarding the intent of the House conferees

on the use of averaging as an emissions compliance tool, I believe that it is important to add to the Record an explanation of the House's action on that subject.

On September 20, 1989, during the Health and Environment Subcommittee markup of title II—mobile, sources—of the Clean Air Act amendments—Dingell-Lent substitute—Congressman TERRY BRUCE offered an amendment to delete the expanded averaging provisions contained in the substitute. During the debate, Mr. BRUCE and Chairman DINGELL engaged in a colloquy regarding the impact of this amendment on EPA's existing authority to use averaging. Chairman DINGELL noted that a 1986 court decision in *NRDC versus Thomas* and previously adopted and pending EPA averaging programs all relied on existing Clean Air Act authority. Mr. BRUCE stated that his amendment was intended to retain the status quo with regard to EPA's ability under the existing Clean Air Act to use averaging and that his amendment deleting the expanded averaging proposal in the Dingell-Lent substitute was not intended to overturn the court's decision with respect to EPA's heavy-duty engine averaging program. Both Chairman DINGELL and Mr. BRUCE further agreed that the amendment was not intended to address any case that might later arise with respect to light-duty averaging programs. Thus the rejection of the Dingell-Lent expanded averaging authority by the House subcommittee was intended to maintain the status quo with regard to EPA's existing authority. Adoption of the Bruce amendment neither expanded or contracted EPA's averaging authority.

I further believe that the recent action taken by EPA in establishing an emissions banking and trading program for heavy-duty engines is consistent with the objectives of both the existing Clean Air Act and the Clean Air Act Amendments of 1990. EPA's program not only requires that credits be discounted, thereby ensuring net environmental benefits, but it also constrains the use of credits to limit localized emissions increases. EPA's program also creates an incentive to produce engines with emissions lower than the applicable standard and is structured to ensure that manufacturers maintain the same production margins as with the current emission standards. The program encourages the early use of improved emission control technologies and the development and sale of alternative fueled vehicles. The program aids manufacturers by reducing the costs of controlling emissions and by smoothing the transition to more stringent emission standards.

Mr. SHARP. Mr. Speaker, I want to clarify two provisions in the Clean Air Act amendments. The first deals with averaging for heavy-duty trucks and the second deals with the so-called WEPKO issue.

With regard to the subject of averaging, the provisions on mobile sources adopted by the House and agreed to by the conferees were not intended to either extend or curtail existing EPA authority for averaging, banking, and trading. The intention was to retain the status quo.

I was one of the authors of the 1977 heavy-duty truck Clean Air Act amendments. Under that legislative authority, EPA has promulgated regulations for averaging (50 Fed. Reg.

10606) and for banking and trading (55 Fed. Reg. 30584). Cognizant of these rules and the Court's decision in *NRDC v. Thomas*, 805 F.2d 410 (D.C. Cir. 1986) the House-Senate conferees chose not to amend the Clean Air Act to specifically prohibit averaging, banking and trading authority.

Averaging, banking and trading programs, in fact, have very positive impacts on air quality. Such programs preserve the requirement that each family of engines must meet or exceed a preassigned standard. Furthermore, averaging programs create an incentive to produce engines lower than the applicable standard, and encourage the development and early use of improved emission control technologies, and the development and sale of alternative-fueled vehicles. Such programs also aid manufacturers in reducing the costs of controlling emissions.

With respect to the WEPKO issue, I want to include in the RECORD correspondence from the administration, addressing the matter, along with additional correspondence from various Senators. The correspondence follows.

COUNCIL OF ECONOMIC ADVISERS,  
Washington, July 23, 1990.

HON. WENDALL H. FORD,  
Chairman, Subcommittee on Energy Research and Development, Committee on Energy and Natural Resources, U.S. Senate, Washington DC.

DEAR CHAIRMAN FORD: Pursuant to my testimony of May 8, 1990, legislative language that addresses the WEPKO issue is enclosed. The Administration believes that language along these lines would both protect environmental quality and remove the uncertainty surrounding the application of the modification rule to electric utility plants as the electric utility industry makes the physical and operational changes necessary to meet new pollution reduction requirements under the Clean Air Act Amendments now under conference consideration.

Answers to the specific questions raised in your letter of May 18, 1990 will be forthcoming shortly. Please do not hesitate to call on me if I can be of assistance regarding any aspect of this issue.

Sincerely,

RICHARD SCHMALENSSEE.

#### PROPOSED WEPKO LANGUAGE

SEC. XXX. APPLICABILITY OF NEW SOURCE REVIEW TO EXISTING ELECTRIC UTILITY STEAM GENERATING UNITS.

(a) APPLICABILITY OF NEW SOURCE PERFORMANCE STANDARDS.—No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for purposes of Section 111, provided such change does not increase the maximum hourly emissions of any pollutant regulated under the section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.

(b) APPLICABILITY OF PART C OF TITLE I—

(1) POLLUTION CONTROL PROJECTS.—For purposes of Part C, no physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification of the source for a specific regulated pollutant, provided that the change constitutes a pollution control project at that unit and does not increase maximum hourly emissions of